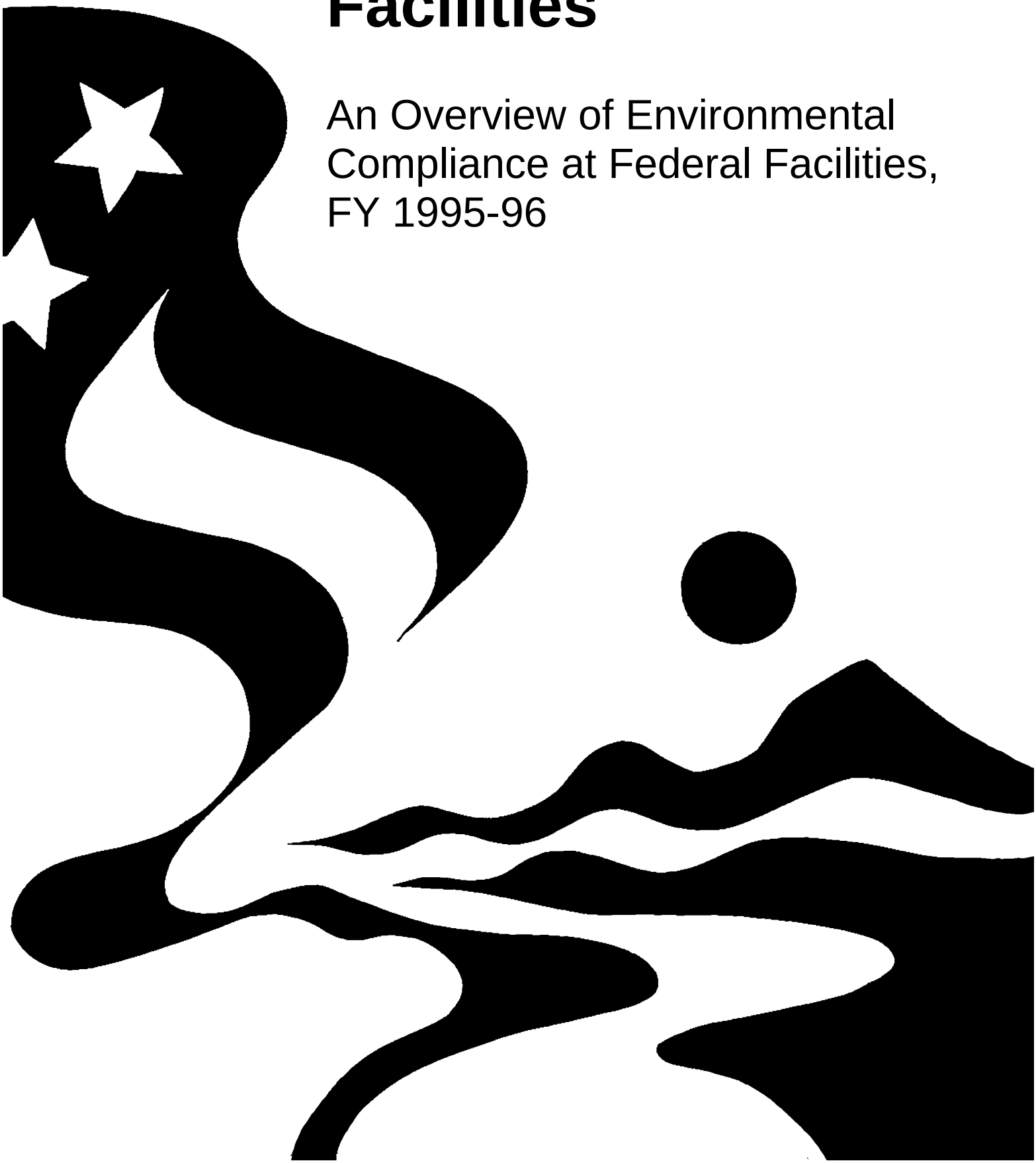
United States Environmental Protection Agency
Office of Enforcement and Compliance Assurance (2261-A)
EPA 300-R-98-003
June 1998

# The State of Federal Facilities

## An Overview of Environmental Compliance at Federal Facilities, FY 1995-96



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# ACRONYMS

| Acronym | Definition |
|---|---|
| AIRS | Aerometric Information Retrieval System |
| BACT | Best Available Control Technology |
| BCTs | BRAC Cleanup Teams |
| BRAC | Base Realignment and Closure Act |
| CAA | Clean Air Act |
| CEI | Compliance Evaluation Inspection |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CERCLIS | CERCLA Information System |
| CERFA | Community Environmental Response Facilitation Act |
| CFA | Civilian Federal Agency |
| CME | Compliance Monitoring Evaluation |
| CWA | Clean Water Act |
| CWS | Community Water System |
| DOD | Department of Defense |
| DOE | Department of Energy |
| DOI | Department of Interior |
| DSMOA | Defense State Memorandum of Agreement |
| EPCRA | Emergency Planning and Community Right-to-Know Act |
| ERP | Enforcement Response Policy |
| ESI | Expanded Site Inspection |
| FFCs | Federal Facilities Coordinators |
| FFCA | Federal Facility Compliance Act (Agreement) |

| **Acronym** | **Definition** |
|---|---|
| FFEO | Federal Facilities Enforcement Office |
| FFIS | Federal Facilities Information System |
| FFRRO | Federal Facilities Reuse and Restoration Office |
| FIFRA | Federal Insecticide, Fungicide, and Rodenticide Act |
| FRDS | Federal Reporting Data System |
| FUDS | Formerly Used Defense Site |
| GOCO | Government-Owned Contractor-Operated |
| HAPs | Hazardous Air Pollutants |
| HRS | Hazard Ranking System |
| IAG | Interagency Agreement |
| IDEA | Integrated Data for Enforcement Analysis |
| JOCO | Jointly-Owned Contractor-Operated |
| LAER | Lowest Achievable Emission Rate |
| LQG | Large Quantity Generator |
| MACT | Maximum Achievable Control Technology |
| NAAQS | National Ambient Air Quality Standards |
| NCDB | National Compliance Data Base |
| NEPA | National Environmental Policy Act |
| NESHAP | National Emissions Standard for Hazardous Air Pollutants |
| NFRAP | No Further Remedial Action Planned |
| NON | Notice of Noncompliance |
| NOV | Notice of Violation |
| NPDES | National Pollutant Discharge Elimination System |
| NPL | National Priorities List |

| Acronym | Definition |
|---|---|
| NSPS | New Source Performance Standard |
| NSR | New Source Review |
| OECA | Office of Enforcement and Compliance Assurance |
| O&M | Operation and Maintenance |
| PA | Preliminary Assessment |
| PCS | Permit Compliance System |
| POGO | Privately-Owned Government-Operated |
| POTW | Publicly Owned Treatment Works |
| PSD | Prevention of Significant Deterioration |
| PWS | Public Water System |
| PWSS | Public Water System Supervision |
| RA | Remedial Action |
| RABs | Restoration Advisory Boards |
| RCRA | Resource Conservation and Recovery Act |
| RCRIS | RCRA Information System |
| RD | Remedial Design |
| RI/FS | Remedial Investigation/Feasibility Study |
| ROD | Record of Decision |
| SARA | Superfund Amendments and Reauthorization Act |
| SDWA | Safe Drinking Water Act |
| SDWIS | Safe Drinking Water Information System |
| SEPs | Supplemental Environmental Projects |
| SI | Site Inspection |
| SIPs | State Implementation Plan |

| **Acronym** | **Definition** |
|---|---|
| SNC | Significant Noncompliance (Noncomplier) |
| SQG | Small Quantity Generator |
| STPs | Supplemental Treatment Plans |
| TRI | Toxics Release Inventory |
| TRIS | Toxic Chemical Release Inventory System |
| TSCA | Toxic Substances Control Act |
| TSDF | Treatment, Storage, and Disposal Facility |
| UIC | Underground Injection Control |

# LIST OF EXHIBITS

**CAA (Continued):**



**SDWA:**



**TSCA/FIFRA:**



**TRI:**



**CERCLA:**



**BRAC:**

**Compliance Indicator Summary:**



**Inspection and Enforcement Highlights:**

# EXECUTIVE SUMMARY

EPA's Federal Facilities Enforcement Office (FFEO) within the Office of Enforcement and Compliance Assurance prepared this third *State of Federal Facilities Report* to provide a snapshot of environmental compliance and enforcement data regarding federal facilities. The report also helps FFEO and the regulated community assess compliance assistance strategies.

## Environmental Requirements

Environmental requirements potentially affecting federal facilities range from federal statutes and their implementing regulations to state and local laws and ordinances. This report summarizes federal facility data during FY 1995 and FY 1996 with respect to the following nine major environmental statutes and programs:

- Resource Conservation and Recovery Act (RCRA) -- Subtitle C
- Clean Water Act (CWA) -- National Pollutant Discharge Elimination System (NPDES) program
- Clean Air Act (CAA)
- Safe Drinking Water Act (SDWA) -- Public Water System Supervision (PWSS) program
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Emergency Planning and Community Right-to-Know Act (EPCRA) -- Toxics Release Inventory (TRI)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Base Realignment and Closure (BRAC)

Before discussing specific environmental programs, it is necessary to provide some background information on the universe of federal facilities.

## Overview of Federal Facilities

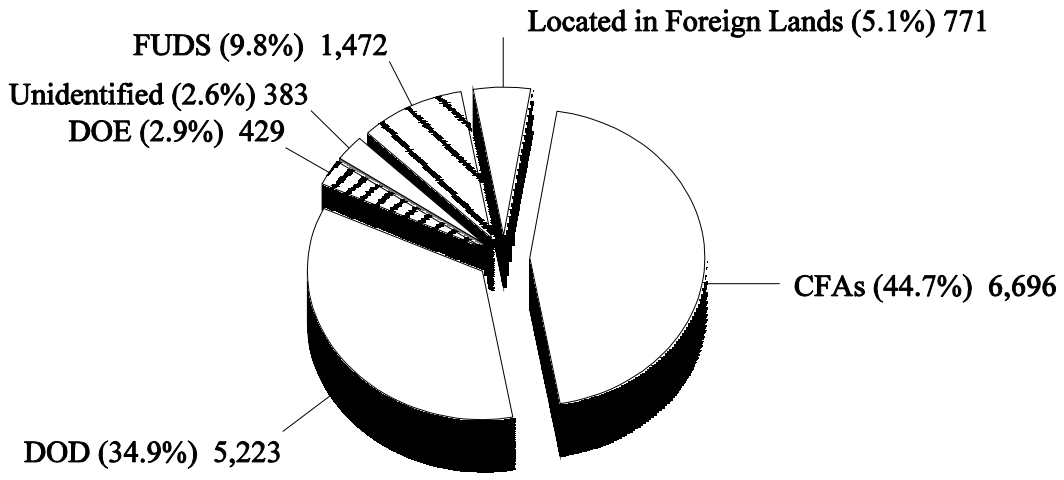
Federal facilities typically comprise a fairly small portion (i.e., less than five percent) of the universe of private and public facilities regulated under the environmental statutes and

programs covered by this report. However, the nature of environmental issues federal facilities face is different than the private sector and highlights the importance of promoting environmental awareness and leadership at federal facilities.

According to the Integrated Database for Enforcement Analysis, as of FY 1996 there were approximately 15,000 federal facilities engaged in some type of activity regulated by environmental requirements. These facilities can be grouped into six broad categories -- Department of Defense (DOD), Department of Energy (DOE), Civilian Federal Agencies (CFA), Formerly Used Defense Sites (FUDS), federal facilities located in foreign lands, and unidentified federal facilities. A breakdown of federal facilities by agency category is presented in Exhibit ES - 1.

**Exhibit ES - 1**

**Federal Facilities by Agency Category** (FY 1996)




Total = 14,974 Federal facilities

DOD and DOE facilities typically include military bases, manufacturing plants, and laboratory facilities. The universe of CFA facilities is more diverse and reflects the range of activities conducted by these agencies. Examples of CFA facilities include: Coast Guard installations, USDA agricultural research stations, DOJ penitentiaries, EPA environmental laboratories, electric power generation stations, and various storage facilities.

## Measuring Environmental Compliance: Compliance Indicators

Because of differences in how EPA and states define and assess compliance under different environmental programs, ***it is not feasible to develop a single compliance indicator that yields meaningful comparisons across programs***. However, evaluating selected

compliance indicators over time can reveal how federal facilities are performing with respect to individual programs. Exhibit ES - 2 presents compliance indicators that measure the level of relatively serious noncompliance at major federal facilities. The definitions of the indicators are summarized below:

| Statute | Compliance Indicator |
|---|---|
| RCRA | Percent of inspected federal treatment, storage, and disposal facilities (TSDFs) not cited for Class I violations |
| CWA | Percent of major federal facilities not in significant noncompliance (SNC) |
| SDWA | Percent of federal systems not in SNC |
| CAA | Percent of major federal sources in compliance |
| TSCA | Percent of inspected federal facilities not in SNC |

These compliance indicators have been measured since FY 1991. Exhibit ES - 2 presents actual values for the compliance indicators discussed above. From FY 1991 to FY 1996, RCRA compliance increased, CWA compliance increased and then steadily decreased, SDWA compliance fluctuated but remained high, CAA compliance decreased from the mid-90 percent range to the high 80 percent range, and TSCA compliance remained at a high level.

**Exhibit ES - 2**

**Federal Facility Compliance Rates for Selected Indicators**

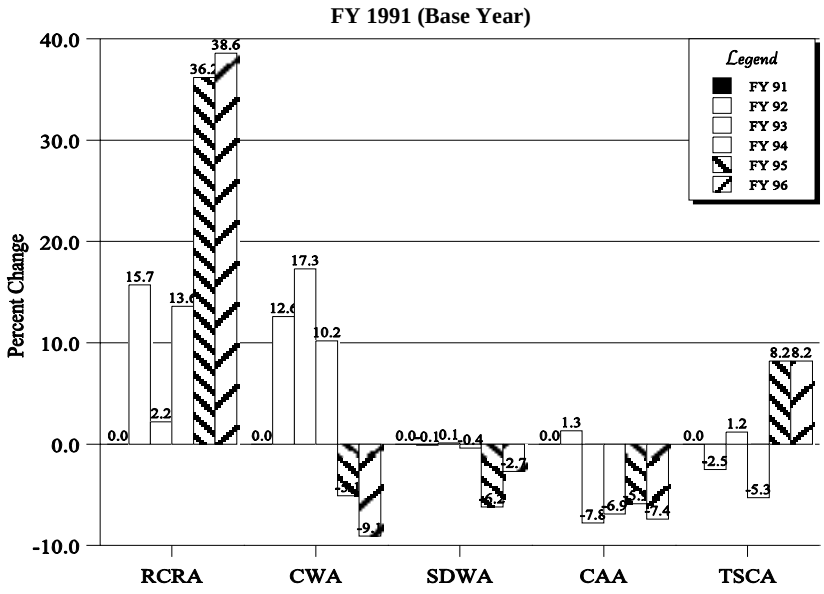
| Statute | FY 1991 | FY 1992 | FY 1993 | FY 1994 | FY 1995 | FY 1996 |
|---|---|---|---|---|---|---|
| **RCRA** | 54.2% | 62.7% | 55.4% | 61.6% | 73.8% | 75.1% |
| **CWA** | 80.3% | 90.4% | 94.2% | 88.5% | 76.2% | 73.0% |
| **CAA** | 94.4% | 95.6% | 87.0% | 87.9% | 88.8% | 87.4% |
| **SDWA** | 99.1% | 99.0% | 99.2% | 98.7% | 93.0% | 96.4% |
| **TSCA** | 92.4% | 90.1% | 93.5% | 87.5% | 100.0% | 100.0% |

To measure changes in compliance rates since FY 1991, standardized compliance indicators are derived by dividing the annual rate for each indicator listed above by the FY 1991

value. These standardized indicators measure changes in compliance rates for the various programs relative to FY 1991 in the same way the consumer price index measures changes in the rate of inflation relative to a given base year. The purpose of standardization is to avoid potentially misleading comparisons of the absolute level of compliance, and instead focus on measuring changes in compliance over time.

**Exhibit ES - 3**

**Percent Changes in Federal Facility Compliance Indicator Rates Relative to FY 1991**




As shown in Exhibit ES - 3, the level of federal facility compliance with most major environmental statutes/programs has been somewhat mixed since FY 1991. Under CWA, SDWA, and CAA the level of compliance at federal facilities decreased by 9.1, 2.7, and 7.4 percent, respectively, during the FY 1991 to FY 1996 time period. In contrast, RCRA compliance at federal facilities increased by 38.6 percent, and TSCA compliance increased by 8.2 percent relative to FY 1991.

## Inspections

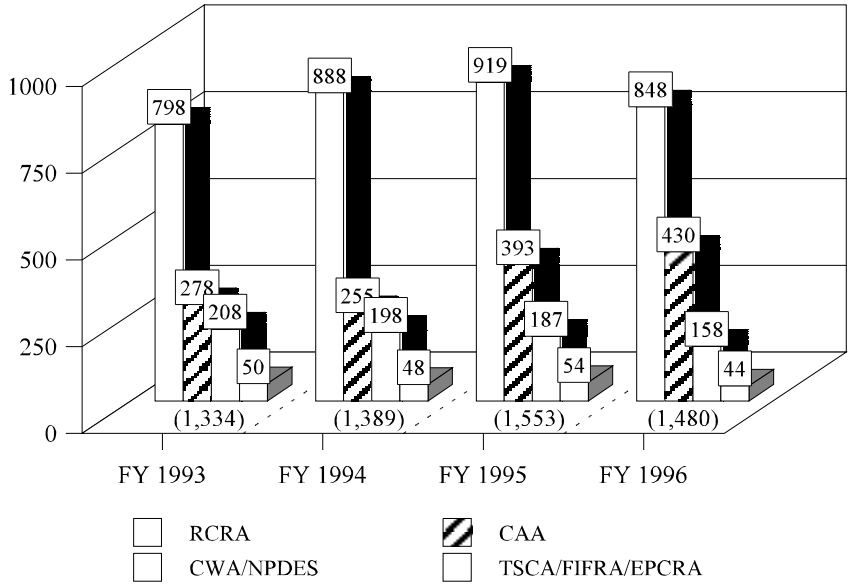
Exhibit ES - 4 summarizes inspection activity at federal facilities from FY 1993 - FY 1996. Note that because the PWSS program under SDWA relies on self-reporting, there are no inspection data for this program. The total number of inspections at federal facilities conducted under all programs increased from 1,334 in FY 1993 to 1,480 in FY 1996. The level of

inspection activity increased most dramatically under the CAA (54.6 percent), while RCRA inspections increased by a more modest 6.3 percent. In contrast, CWA/NPDES inspections decreased by nearly one-fourth, and taken collectively, TSCA/FIFRA/EPCRA inspections declined by 12 percent.

It should be noted that these overall totals are not necessarily indicative of the level of resources expended on inspection activities within a given program because they do not distinguish between inspection types. For example, there are many different types of inspections under RCRA (e.g., Comprehensive Monitoring Evaluations, Compliance Evaluation Inspections, Record Reviews). Some of these are resource-intensive field inspections, while others are simply reviews of documents. For a more detailed discussion of inspection activity, see the statute/program-specific summaries contained in Section III of this document.

**Exhibit ES - 4**

**Federal Facility Inspections (FY 93 - FY 96)**




## Enforcement

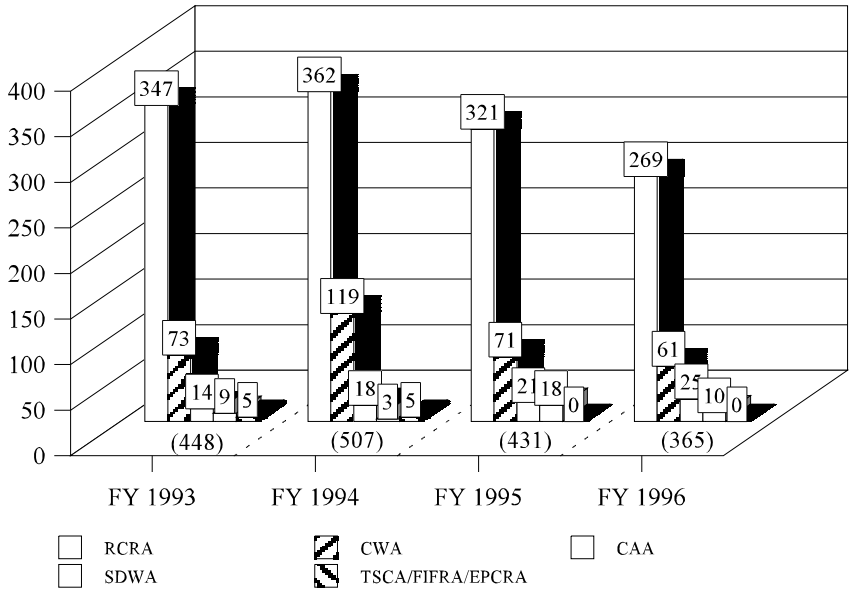
As shown in Exhibit ES - 5, the total number of enforcement actions taken against federal facilities decreased by more than 18 percent (448 to 365) from FY 1993 to FY 1996. The total number of RCRA enforcement actions taken against federal facilities decreased by 22.5 percent from FY 1993 to FY 1996. This substantial decrease occurred despite the overall increase in RCRA inspection activity (see Exhibit ES - 4 above). CWA/NPDES enforcement also declined by 16.4 percent, although as shown above, the decline in inspections was much more pronounced. Over the same period, CAA enforcement actions at federal facilities actually

increased by nearly 80 percent, paralleling an increase of more than 50 percent in inspections. SDWA enforcement actions remained fairly constant during this time frame, while TSCA/FIFRA/EPCRA enforcement actions dropped to zero in FY 1996, albeit from a fairly small number (i.e., 5) in FY 1993.

As was the case for inspections, these aggregate enforcement action totals do not account for differences in the type of enforcement action (i.e., a warning letter and an administrative order each count as one action). For a more detailed discussion of enforcement activity, see the program-specific summaries contained in Section III of this document.

**Exhibit ES - 5**

**Federal Facility Enforcement Actions (FY 93 - FY 96)**




The remainder of this Executive Summary presents summary data for federal facilities under the RCRA, CWA, CAA, EPCRA, SDWA, TSCA/FIFRA, CERCLA, and BRAC programs, while the full report contains more detailed compliance information.

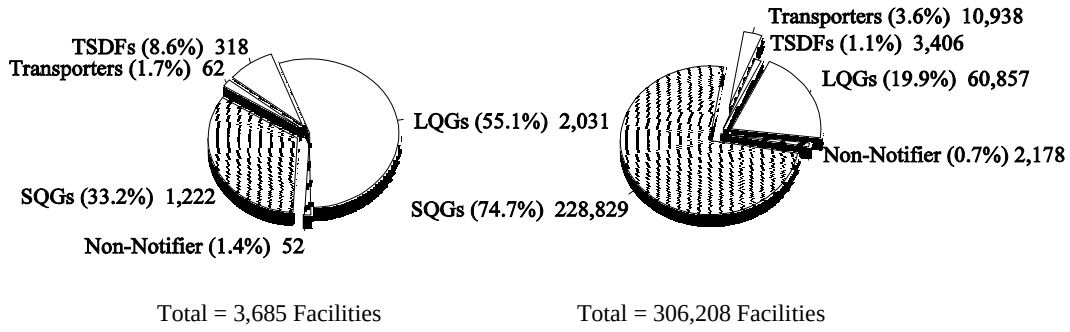
## Resource Conservation and Recovery Act

The 3,685 federal RCRA facilities represent a fairly small portion of the entire RCRA universe in FY 1996, approximately 1.2 percent. Of the 3,685 facilities, 42.2 percent are DOD, 5.2 percent are DOE, and 49.6 percent are CFA, and 3.0 percent are unidentified by agency. RCRA facilities can be further subdivided into four categories: small quantity generators (SQGs), large quantity generators (LQGs), transporters, and TSDFs. As can be seen in Exhibit ES - 6, the distribution of federal facilities by handler type differs from non-federal facilities in that:

- The share of the universe comprised by TSDFs is eight times greater among federal facilities;
- Transporters are more than twice as common within the non-federal sector; and
- LQGs account for the majority (55.1 percent) of federal handlers, while SQGs account for the majority (74.7 percent) of non-federal facilities.

**Exhibit ES - 6**

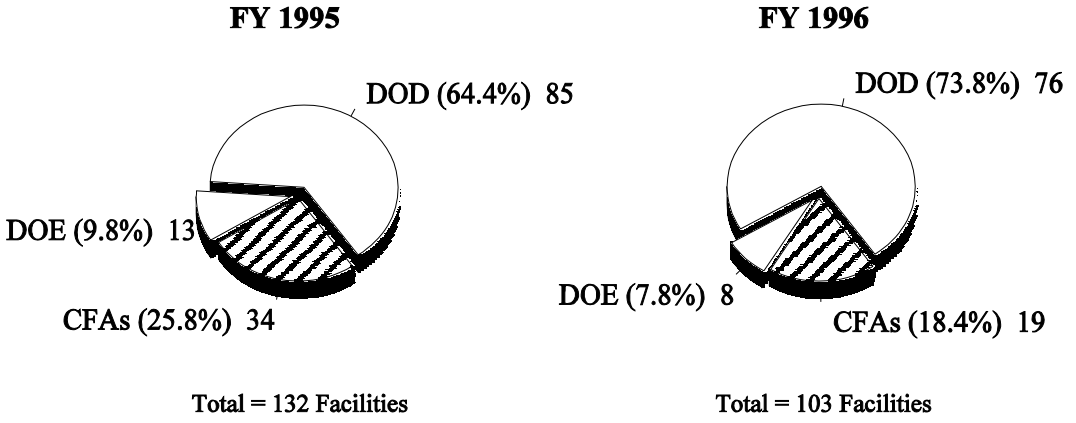
**RCRA Facility by Handler Type (FY 1996)**




To assess compliance with RCRA requirements, federal and state inspectors conducted 919 and 848 inspections at federal facilities in FY 1995 and FY 1996, respectively. Of these, 132 and 103 facilities, respectively, were cited for Class I RCRA violations. Exhibit ES - 7 presents the percentage of facilities receiving Class I violations according to agency.

**Exhibit ES - 7**

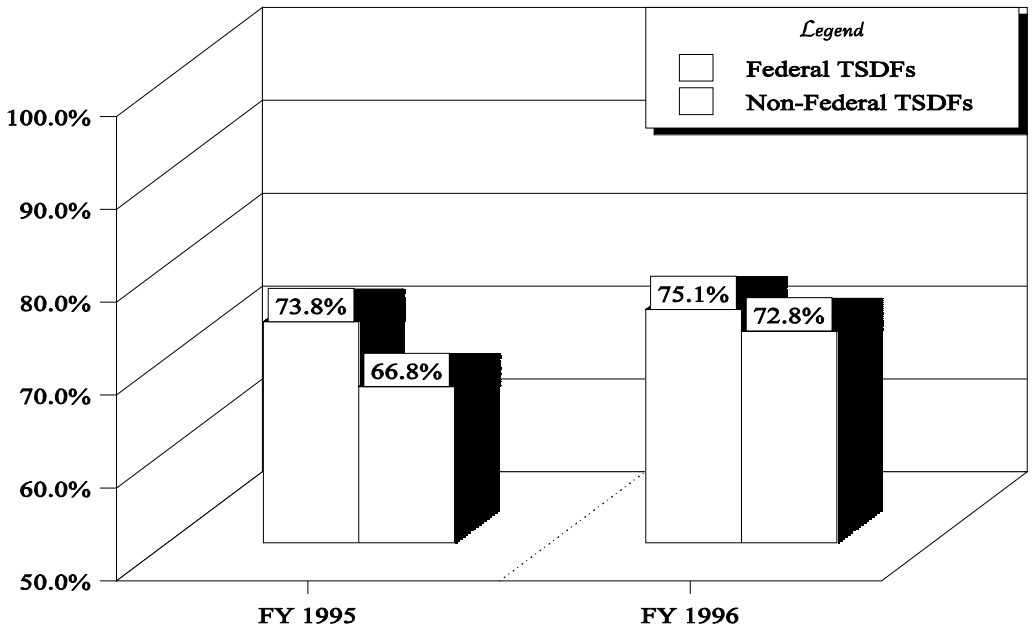
**Federal Facilities with Class I Violations by Agency Category**




Of the federal facilities cited for Class I violations in FY 1995 and FY 1996, 71 and 64, respectively were TSDFs, which are generally considered major federal facilities under RCRA. Therefore, of the total number of inspected federal TSDFs (271 in FY 1995 and 257 in FY 1996), 73.8 percent and 75.1 percent were not cited for Class I violations in FY 1995 and FY 1996, respectively. The corresponding Class I violation "compliance rates" for the non-federal universe of inspected TSDFs were 66.8 percent and 72.8 percent. Exhibit ES - 8 graphically presents this comparison.

**Exhibit ES - 8**

**Percentage of Inspected TSDFs not Cited for RCRA Class I Violations**




There were a total of 321 enforcement actions taken against federal facilities in FY 1995 and 269 taken in FY 1996. Exhibit ES - 9 presents a breakdown of informal versus formal enforcement actions, as well as proposed versus final penalties assessed and costs attributed to Supplemental Environmental Projects.

**Exhibit ES - 9**

**RCRA Enforcement Actions at Federal Facilities**

| Type of Action | FY 1995 Total | FY 1996 Total |
|---|---|---|
| Informal | 238 (74.1%) | 207 (77.0%) |
| Formal | 83 (25.9%) | 62 (23.0%) |
| **All Enforcement Actions** | **321** | **269** |
| Proposed Penalties | $ 1,536,776 | $1,726,423 |
| Final SEP Cost | $ 355,831 | $ 622,195 |
| Final Penalties Collected (excluding SEP costs) (04/17/97) | $ 1,601,213 | $ 794,631 |

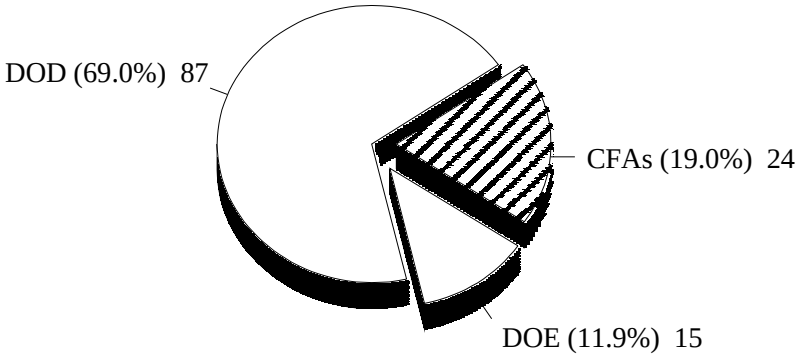
## Clean Water Act

The CWA and its 1987 amendments are the primary statutes governing the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Dischargers of point source wastewater must submit an application for a NPDES permit.

At the end of FY 1996, federal facilities comprised approximately 1.9 percent (126) of the total universe of 6,630 major facilities regulated under the NPDES program. As shown in Exhibit ES - 10 of these 126 facilities, 69.0 percent were DOD, 11.9 percent were DOE, and 19.0 percent were CFA facilities.

**Exhibit ES - 10**

**Major Federal NPDES Facilities by Agency Category (FY 1996)**




Total = 126 Facilities

The number of NPDES inspections (both EPA- and state-led) at federal facilities decreased by 15.5 percent, from 187 in FY 1995 to 158 in FY 1996. Exhibit ES - 11 presents federal facilities in SNC with NPDES according to agency. For FY 1995 and FY 1996, DOD facilities comprised approximately 60 percent and 76 percent, respectively, of federal facilities in SNC. Both the number of CFA and DOE facilities in SNC and their relative share decreased during this time period. For FY 1995 and FY 1996, therefore, the percentage of major federal facilities not in SNC was 76.2 percent and 73.0 percent, respectively.

**Exhibit ES - 11**

**Major Federal NPDES Facilities in SNC by Agency Category**

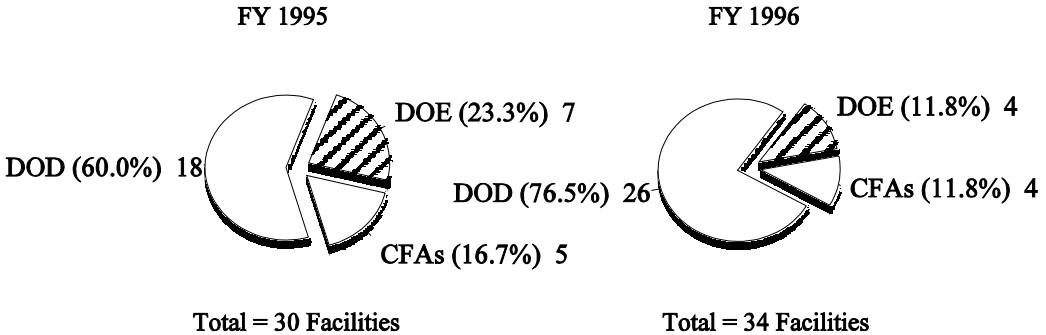
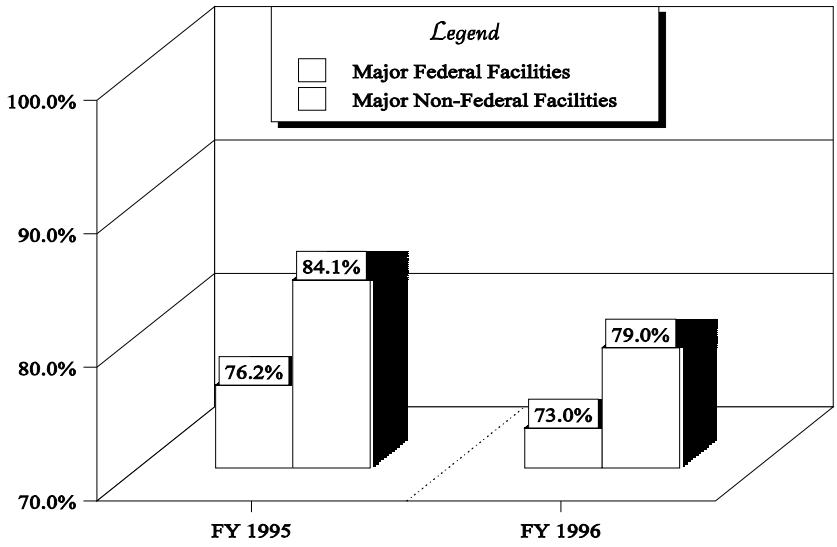


Exhibit ES - 12 compares the percentage of federal facilities not in SNC against corresponding compliance rates for the universe of major non-federal NPDES facilities. During both FY 1995 and FY 1996, the percentages of major federal facilities not in SNC were lower than for non-federal facilities.

**Exhibit ES - 12**

**Federal vs non-Federal NPDES Compliance Rates (% not in SNC)**




As shown in Exhibit ES - 13, EPA and states took 71 and 61 enforcement actions in FY 1995 and FY 1996, respectively, to address NPDES noncompliance at federal facilities.

**Exhibit ES - 13**
**Type of NPDES Enforcement Actions at Federal Facilities**

| Type of Enforcement Action | Number of Actions in FY 1995 | Number of Actions in FY 1996 |
|---|---|---|
| Informal | 42 (59.2%) | 43 (70.5%) |
| Formal | 20 (28.2%) | 7 (11.5%) |
| Other | 9 (12.7%) | 11 (18.0%) |
| **TOTAL** | **71** | **61** |

## Clean Air Act

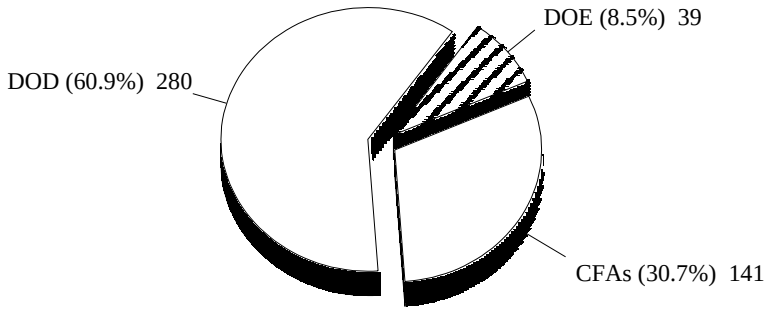
The CAA, as amended in 1990, is the primary federal statute regulating air emissions. To fulfill its mandate of air pollution protection, the CAA establishes four types of health, welfare, and technology-based standards and programs to prevent and control air pollution:

- ➤ National Ambient Air Quality Standards
- ➤ National Emissions Standards for Hazardous Air Pollutants
- ➤ New Source Performance Standards
- ➤ Prevention of Significant Deterioration of Air Quality.

In FY 1996, 460 major federal sources existed within the universe of 36,834 major sources regulated under all programs within the CAA. As shown in Exhibit ES - 14, 60.9 percent were DOD, 8.5 percent were DOE, and 30.7 percent were CFAs.

**Exhibit ES - 14**

**CAA Major Federal Sources by Agency Category (FY 1996)**




Total = 460 Major Sources

EPA and state inspectors conducted a total of 430 CAA inspections of major federal sources during FY 1996, an increase of almost ten percent relative to FY 1995. Some of these sources were inspected more than once during the year -- the actual number of major federal sources inspected was 244 in FY 1995 and 224 in FY 1996. Under the CAA, federal facilities may be subject to compliance requirements under multiple programs. A major source found to be in compliance with the provisions of one program, yet out of compliance with those of another, is considered to be out of compliance.

The overall compliance rates for major federal sources during FY 1995 and FY 1996 were 88.8 percent and 87.4 percent, respectively. As shown in Exhibit ES - 15, federal facilities experienced slightly lower CAA compliance rates than their non-federal counterparts.

**Exhibit ES - 15**

**CAA Compliance Rates for Major Federal vs Major Non-Federal Sources**

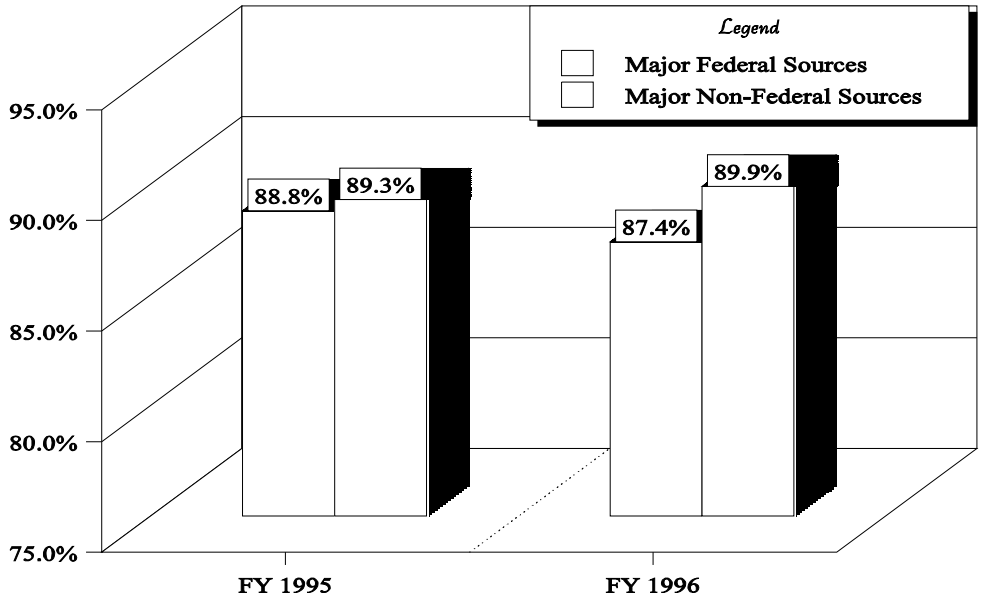



Exhibit ES - 16 breaks down individual CAA compliance data across agencies for FY 1995 and FY 1996. DOD and DOE compliance rates were both much higher than CFA compliance rates for FY 1995 and FY 1996. DOE compliance rates remained unchanged during this time period. Note that sources identified as "unknown" indicate that EPA or the state was unable to determine the compliance status of the source due to a lack of data, malfunctioning monitoring equipment, or other reasons.

**Exhibit ES - 16**
**CAA Compliance Indicator Rates by Agency Category**

| Agency | In Compliance | Out of Compliance | Unknown | Total |
|---|---|---|---|---|
| **FY 1995** | | | | |
| DOD | 243 (92.0%) | 21 (8.0%) | 0 (0.0%) | 264 |
| CFAs | 98 (81.0%) | 17 (14.0%) | 6 (5.0%) | 121 |
| DOE | 33 (91.7%) | 1 (2.8%) | 2 (5.6%) | 36 |
| Total | 374 (88.8%) | 39 (9.3%) | 8 (1.9%) | 421 |
| **FY 1996** | | | | |
| DOD | 249 (90.5%) | 24 (8.7%) | 2 (0.7%) | 275 |
| CFAs | 101 (79.5%) | 19 (15.0%) | 7 (5.5%) | 127 |
| DOE | 33 (91.7%) | 1 (2.8%) | 2 (5.6%) | 36 |
| Total | 383 (87.4%) | 44 (10.0%) | 11 (2.5%) | 438 |

EPA and states issued 21 and 25 NOVs at federal facilities during FY 1995 and FY 1996, respectively, for failure to comply with provisions of the CAA. The majority of NOVs were issued against DOD facilities. Although relative compliance rates were high among DOD facilities (see Exhibit ES - 16), because they comprise a much larger portion of the universe of federal facilities, DOD facilities still tend to receive the majority of the enforcement actions.

**Asbestos Abatement at Federal Facilities**

Due to the significant potential health hazards posed by asbestos abatement activities (i.e., removal, encapsulation), as well as the ubiquitous nature of asbestos in buildings constructed during the first half of this century, the asbestos NESHAP program has particular relevance for federal facility compliance.

During the period from the first quarter of FY 1995 to the fourth quarter of FY 1996, 338 federal facilities provided 1,301 notifications of planned asbestos abatement activities. Collectively, DOD facilities outnumber all other reporting facilities by more than a two-to-one margin, with Air Force installations comprising the largest share among DOD facilities.

Based on these notifications, EPA and the states conducted 278 inspections, with the vast majority (93.5 percent) being led by state authorities. Exhibit ES - 17 shows the number of inspections, violations, and enforcement actions for both years.

**Exhibit ES - 17**

**Federal Facility Asbestos NESHAP Program Data**

| Year | Inspections | Violations | | Enforcement Actions | | |
|---|---|---|---|---|---|---|
| | | Substantive | Notification | Warning | NOV | Order |
| FY 1995 | 136 | 5 | 10 | 1 | 13 | 0 |
| FY 1996 | 142 | 4 | 9 | 0 | 14 | 0 |

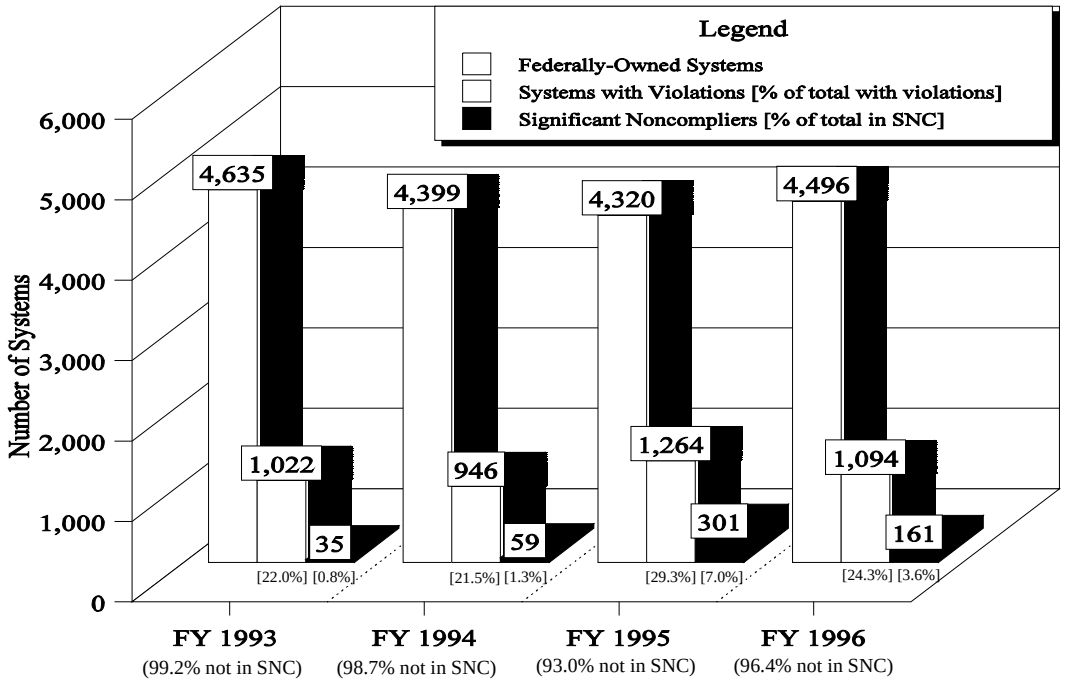
## Safe Drinking Water Act

The SDWA is the basis for protecting public drinking water systems from harmful contaminants. To implement the law, EPA established the PWSS Program, which regulates all public water supply systems, as well as the Underground Injection Control (UIC) Program, which specifically protects underground sources of drinking water through the establishment of state wellhead and sole source aquifer protection programs.

In FY 1996, federal systems comprised approximately 2.6 percent (4,496) of the total universe of 173,279 systems regulated under the PWSS. Exhibit ES - 18 shows that overall compliance at federal systems under the PWSS has decreased since FY 1993. The number of federal systems cited for violations increased from 1,022 in FY 1993 to 1,094 in FY 1996. Moreover, because the number of federal systems actually declined, the percentage of systems with violations increased from 22.0 percent to 24.3 percent over the same period. Systems in SNC increased from 0.8 percent in FY 1993 to 3.6 percent in FY 1996. The corresponding percentages for systems not in SNC for FY 1995 and FY 1996 were 93.0 percent and 96.4 percent, respectively.

**Exhibit ES - 18**

**PWSS Program Compliance at Federally-Owned Systems**




Few federal systems received formal enforcement actions for violations under the PWSS, either from EPA or the states. The total number of federal systems receiving enforcement actions decreased from 18 in FY 1995 to 10 in FY 1996. No federal systems received Civil Referrals or had Criminal Cases filed against them during either year.

## Toxic Substances Control Act & Federal Insecticide, Fungicide, and Rodenticide Act

The purpose of TSCA is to protect human health and the environment by requiring that specific chemicals be tested and that their processing and use be controlled or restricted as appropriate. FIFRA provides EPA with the authority to oversee the registration and use of pesticides and other similar products intended to kill or control insects, rodents, weeds, and other living organisms.

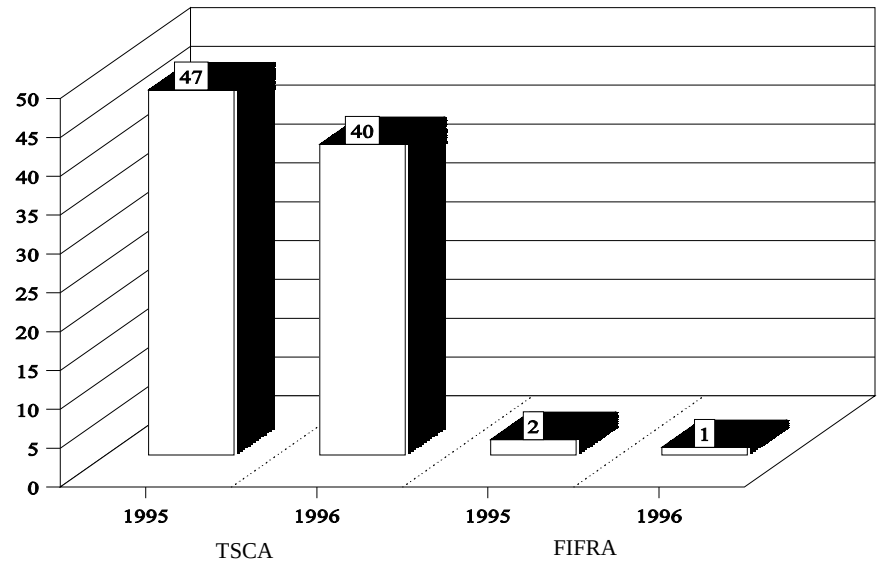
TSCA and FIFRA are not permit-based compliance programs (e.g., RCRA), nor do they involve any formal listing process whereby facilities meeting certain criteria are identified and tracked until they no longer meet these criteria (e.g., CERCLA). Moreover, the number and identity of facilities subject to TSCA change substantially from year to year, and many of the activities that subject an entity to FIFRA do not occur at a fixed location (e.g., a single firm

spraying pesticides, herbicides, etc. on agricultural land located throughout a wide geographical area). As a result, there are no readily definable TSCA or FIFRA universes. Facilities subject to these programs are identified and targeted for inspections through a variety of less formal means, including: self-reporting by entities of their intent to manufacture toxic substances or pesticides, third-party requests/complaints, and EPA/state evaluation of publicly available data (e.g., annual reports).

There were relatively few TSCA and FIFRA inspections at federal facilities during FY 1995 and FY 1996. Exhibit ES - 19 presents the number of inspections conducted under TSCA and FIFRA during FY 1995 and FY 1996.

**Exhibit ES - 19**

**TSCA and FIFRA Inspections at Federal Facilities**




By definition, all federal facilities found in SNC with TSCA are subject to formal enforcement actions. The type of action taken is referred to as a Notice of Noncompliance (NON). Under both TSCA and FIFRA, federal facilities, unlike commercial facilities, are not subject to penalties. EPA did not find any federal facilities to be in SNC with either TSCA or FIFRA during FY 1995 or FY 1996. In other words, there were no violations of TSCA or FIFRA at federal facilities that triggered an enforcement response at an administrative complaint level.

## Emergency Planning and Community Right-to-Know Act -- TRI Reporting

The TRI, established under EPCRA, is a publicly available data base containing specific chemical release and transfer information from manufacturing facilities throughout the United

states. In addition, following the passage of the Pollution Prevention Act in 1990, the TRI was expanded to include reporting of additional waste management and pollution prevention activities.

In August of 1993, President Clinton signed Executive Order (E.O.) 12856, which required federal facilities to begin submitting TRI reports for calendar year 1994 activities. Federal facilities meeting the TRI chemical thresholds are required to file TRI reports, whether or not they are engaged in manufacturing. Government-owned contractor-operated (GOCO) federal facilities, however, are required to submit TRI reports, irrespective of the Executive Order.

TRI reports for each calendar year are submitted to EPA by July 1 of the following year. After completing data entry and quality assurance activities, EPA makes data available to the public in a printed report, in a computerized database, and through a variety of other information products. These products are usually released during the early spring of the year following submission of data; thus the information contained in this report, which is derived from data released in May of 1997, presents TRI reporting activity for calendar year 1995.

Prior to 1994, only GOCO federal facilities were required to submit TRI reports. These same facilities would continue to submit after 1994, assuming they met TRI thresholds, although they would be identified as federal facilities, not GOCOs. It should be noted, however, because the universe of reporting facilities has changed, comparisons of pre- and post- 1994 data may not be entirely valid.

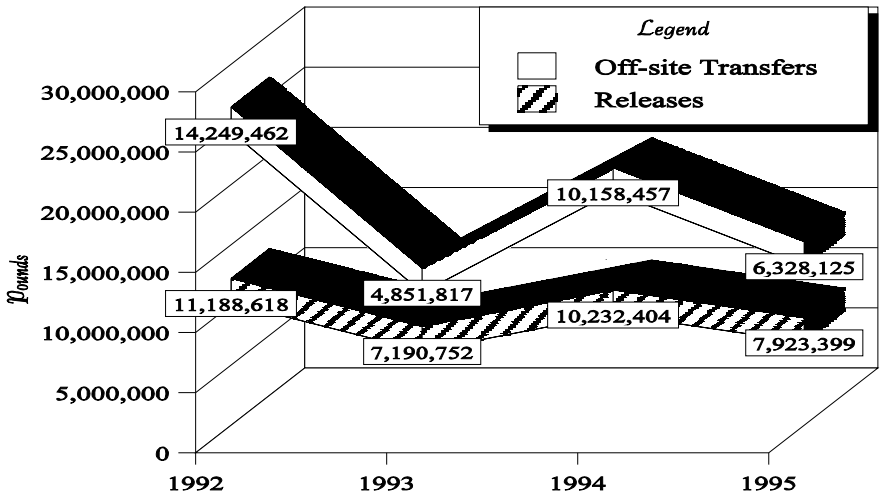
Federal facilities reported releases of approximately 7.9 million pounds of TRI chemicals in 1995, most of which (76.1 percent) consisted of releases to the air. Releases to air from stack air emissions exceeded fugitive sources by approximately 4.5 percent. Of the releases to environmental media other than air, the majority (13.3 percent) were accounted for by releases to land, followed by releases to water (6.4 percent) and releases to underground injection wells (4.1 percent).

Exhibit ES - 20 shows that TRI off-site transfers in the FY 92-93 timeframe decreased from 14.3 million pounds to 4.8 million pounds with 57 GOCO facilities reporting, then decreased from 10.2 million pounds to 6.3 million pounds with 142 federal/GOCO facilities reporting.

TRI releases decreased from 11.2 million pounds to 7.2 million pounds in the FY 92-93 timeframe, then decreased from 10.2 million pounds to 7.9 million pounds in the FY 94-95 timeframe.

**Exhibit ES - 20**

**TRI Releases and Off-site Transfers at Federal Facilities (1992 -1995)**




## EPCRA §313 Inspections

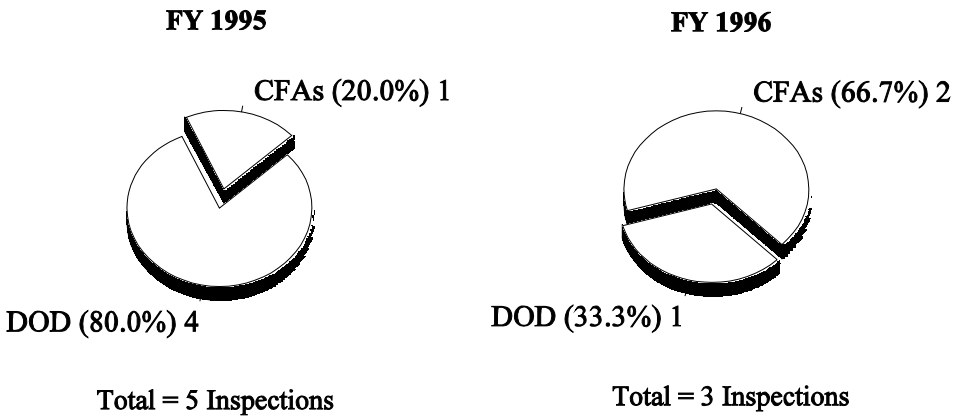
In addition to the standard reporting requirements of the EPCRA TRI program (EPCRA §313), EPA conducts a limited number of inspections at reporting federal facilities. Given the nature of the program, inspections conducted under EPCRA §313 tend to involve document reviews, although the process of verifying the accuracy of TRI reporting may involve some on-site field evaluations. Exhibit ES - 21 shows the number of EPCRA §313 inspections conducted at federal facilities during FY 1995 and FY 1996. Per section 5-502 of E.O. 12856, EPA Regions acted as the lead on all inspections during this period. In response to E.O. 12856, begining in FY 1997, FFEO increased EPCRA §313 inspection activity at federal facilities.

## EPCRA §313 Enforcement Actions

Per section 5-502 of E.O. 12856**,** federal agencies are not subject to the enforcement provisions of §325 and §326 of EPCRA.

**Exhibit ES - 21**

**EPCRA §313 Inspections by Federal Agency Category**




## Comprehensive Environmental Response, Compensation, and Liability Act

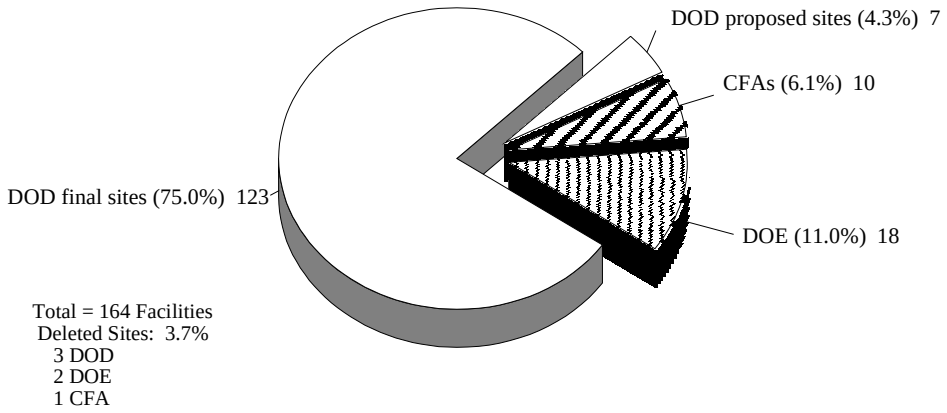
CERCLA authorizes the federal government to respond to situations involving past disposal of hazardous substances. Under CERCLA, parties causing or contributing to contamination are held responsible for cleaning up contaminated sites.

Section 120(c) of CERCLA requires EPA to establish a list of federal facilities that report hazardous waste activity under RCRA or §103 of CERCLA. The list, known as the Federal Agency Hazardous Waste Compliance Docket, is a key component in identifying potentially contaminated sites at federal facilities. From its inception in February of 1988 to the most recent update in March of 1995, the number of sites at federal facilities listed on the docket has nearly doubled, from 1,094 to 2,104.

The National Priorities List (NPL) is EPA's listing of the highest priority sites for cleanup. Exhibit ES - 22 presents the status of sites on the NPL located at federal facilities as of FY 1996.

**Exhibit ES - 22**

**Federal Facilities on the NPL (FY 1996)**




At the start of EPA's federal facilities enforcement program, EPA directed its resources largely to the completion of negotiations for CERCLA §120 interagency agreements (IAGs). These agreements made up the cornerstone of the enforcement program addressing the 151 final and seven proposed federal facilities listed on the NPL at the end of FY 1996. Each agreement contained specific schedules for the study and cleanup of hazardous substances at these facilities.

There were three and two additional federal facility CERCLA IAGs executed in FY 1995 and FY 1996, respectively. Of the federal sites listed on the NPL at the end of FY 1996, 134 are now covered by 125 IAGs.

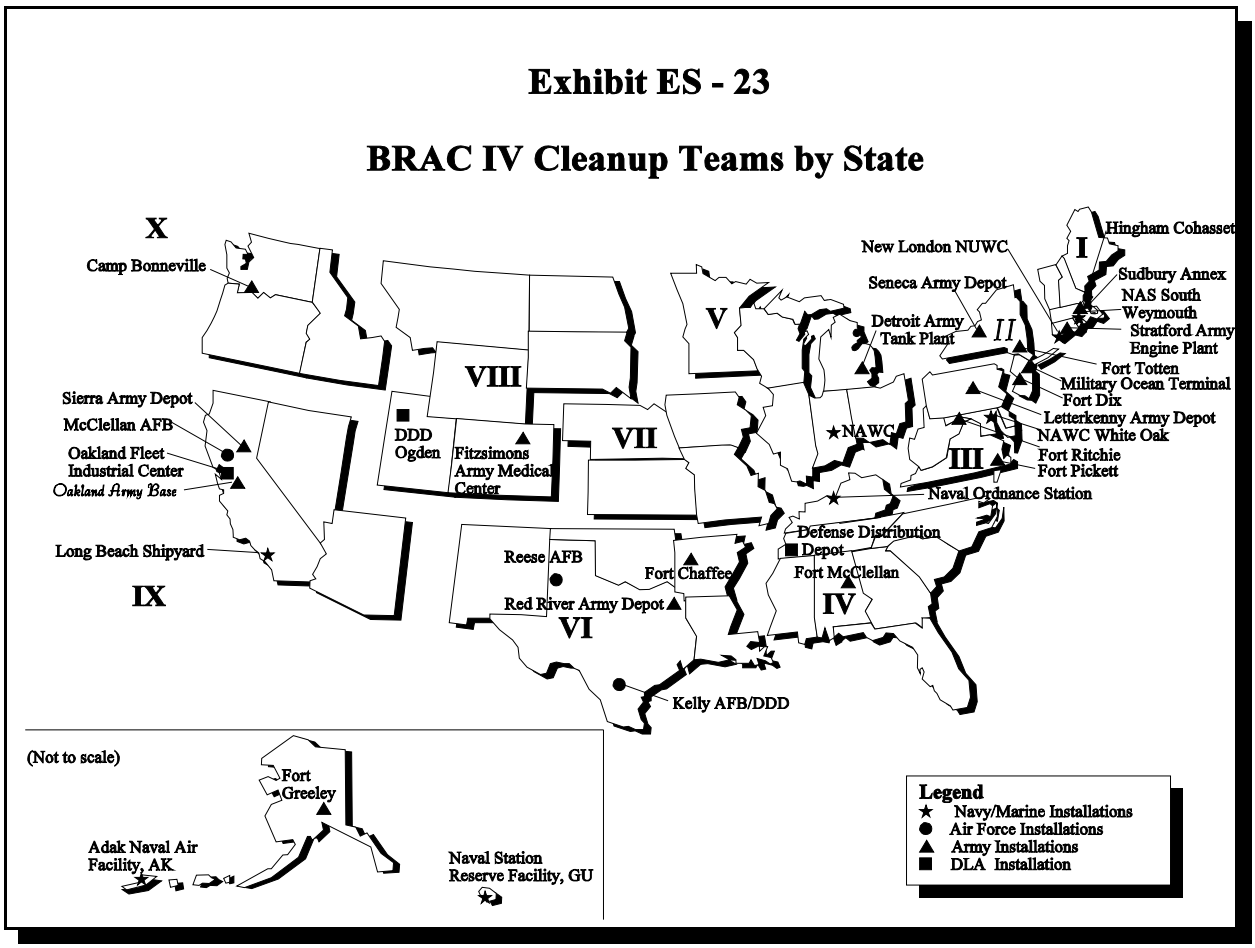
## Base Realignment and Closure

The Base Realignment and Closure Acts of 1988 and 1990 provide for the realignment or complete closure of military installations based on revised force structure needs. The Acts stipulate that installations be chosen for closure or realignment in 1988 (BRAC I), 1991 (BRAC II), 1993 (BRAC III), and 1995 (BRAC IV).

EPA, DOD, and the states are charged with creating a working partnership to implement the President's Fast Track Cleanup Program at installations with environmental contamination and where property will be available for transfer to the community. The objectives of the Fast Track Cleanup Program are quick identification of clean parcels for early reuse, selection of appropriate leasing parcels where cleanup is underway, and hastening cleanup. The number of

Fast Track Cleanup locations is a subset of the total number of installations selected for closure or realignment.

DOD, EPA and state regulators have forged BRAC Cleanup Teams (BCTs) to deal with the complex environmental problems at Fast Track Cleanup locations. The BCTs are empowered to make decisions locally to the maximum extent possible and have the ability to raise issues immediately to senior level officials for resolution should the need arise. Exhibit ES - 23 presents the location of round IV BCTs throughout the country.




## Conclusions and Next Steps

Continued assessment of compliance problems confronting federal facilities will provide EPA and states with the ability to strengthen their oversight programs. Future compliance assessments need to analyze the root causes of noncompliance to achieve environmental compliance goals within the federal sector.

EPA will continue to work with states, Indian Tribes, other federal agencies, and the public to achieve federal environmental leadership. Specifically, EPA will focus on the following key objectives:

- ➤ Determining the causes of noncompliance with environmental laws.
- ➤ Integrating multi-media inspection and enforcement strategies into standard environmental program requirements for federal facilities.
- ➤ Working with federal agencies to incorporate pollution prevention into their environmental management planning efforts.
- ➤ Involving the public in each stage of the federal government's environmental decision-making process.
- ➤ Applying the full range of enforcement authorities available under environmental laws.
- ➤ Ensuring compliance with negotiated enforcement agreements at federal facilities.
- ➤ Implementing a process for accelerating the cleanup of military installations slated for closure.
- ➤ Reducing the cost and increasing the effectiveness of environmental technologies.
- ➤ Training federal agency staff in the objectives and approaches for environmental cleanup and compliance.

# I. INTRODUCTION

EPA's Federal Facilities Enforcement Office (FFEO), within the Office of Enforcement and Compliance Assurance (OECA), periodically assesses federal facility performance with respect to environmental statutes and programs. The last assessment, *The State of Federal Facilities: An Overview of Environmental Compliance Status at Federal Facilities, FY 1993-94*, was published in December 1995. This current State of Federal Facilities report examines federal facility environmental performance during FY 1995 and FY 1996. Where appropriate and when data are comparable, this report also examines pre-FY 1995 data.

Federal facilities are generally subject to the same environmental statutes and regulations as commercial entities. EPA, in conjunction with the states, has oversight responsibility for federal facility environmental programs. To fulfill its oversight responsibility, FFEO conducts a broad range of activities, including:

- ➤ Compliance oversight and enforcement;
- ➤ Training and compliance assistance; and
- ➤ Review of federal agency environmental plans and programs.

Through its network of Regional Federal Facilities Coordinators (FFCs) and state contacts, FFEO works with appropriate facility personnel to ensure that they take the necessary actions to prevent, control, and abate environmental pollution.

## Environmental Requirements

Environmental requirements potentially affecting federal facilities range from federal statutes and their implementing regulations to state and local laws and ordinances. This report summarizes federal facility data during FY 1995 and FY 1996 with respect to the following nine major environmental statutes and programs:

- ➤ ***Resource Conservation and Recovery Act (RCRA)*** -- RCRA Subtitle C and its associated amendments regulate the generation, transport, storage, treatment, and final disposal of hazardous waste.
- ➤ ***Clean Water Act (CWA)*** -- Under the CWA, EPA or approved states issue National Pollutant Discharge Elimination System (NPDES) permits that establish effluent limits for all municipal and industrial wastewater discharges.

- ***Clean Air Act (CAA)*** -- The CAA authorizes EPA to establish emission control standards to achieve the air quality goals set forth in the National Ambient Air Quality Standards.

- ***Safe Drinking Water Act (SDWA)*** -- The Public Water Supply Supervision (PWSS) program authorized by SDWA enables EPA to set standards to control both manmade and naturally occurring contaminants. In most cases, states have primary responsibility for oversight and enforcement under SDWA.

- ***Toxic Substances Control Act (TSCA)*** -- Under TSCA, EPA identifies and controls the manufacture, process, distribution, use, and disposal of existing and new chemical substances and mixtures.

- ***Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)*** -- Under FIFRA, EPA has the authority over the sale, distribution, and use of pesticide products.

- ***Toxics Release Inventory (TRI)*** -- Under the Emergency Planning and Community Right-to-Know Act (EPCRA) TRI program, EPA provides information about toxic chemicals to the public through an annual report of releases of such chemicals by industrial and other facilities.

- ***Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*** -- CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA), created the Superfund program to respond to releases of hazardous substances, pollutants, and contaminants resulting from accidents or uncontrolled/abandoned hazardous waste sites.

- ***Base Realignment and Closure (BRAC)*** -- The Defense Base Realignment and Closure Acts of 1988 and 1990 provide for the closing of selected military installations. To assist in meeting the environmental restoration needs under the BRAC program, the Community Environmental Response Facilitation Act (CERFA) was enacted in 1992 to facilitate the transfer of uncontaminated and remediated parcels.

The information contained in this report is drawn from many sources within and across the various EPA environmental program offices. The starting point for the analysis is the **Integrated Database for Enforcement Analysis** (IDEA), which is a mainframe information management system that draws upon several other EPA data bases, including:

- ***RCRIS*** -- The Resource Conservation and Recovery Information System is the mainframe data base that tracks hazardous waste handlers under RCRA.

- ***PCS*** -- The Permit Compliance System tracks EPA Regional and state compliance and enforcement data for the NPDES under the CWA.

- ***AIRS*** -- The Aerometric Information Retrieval System manages aerometric emissions and compliance data on point sources tracked by EPA, state, and local governments in accordance with the CAA.

- ***NCDB*** -- The National Compliance Data Base is the national repository for compliance and enforcement data collected by EPA under FIFRA, TSCA, and §313 of EPCRA.

- ***CERCLIS*** -- The Comprehensive Environmental Response, Compensation, and Liability Information System is the primary data base used under the Superfund program.

In addition, this report also obtained data from the following "stand alone" systems:

- ***SDWIS*** -- The Safe Drinking Water Information System is a national data base that tracks public water supply system compliance and enforcement data collected by EPA Regions and states under the PWSS program of SDWA.

- ***TRIS*** -- The Toxic Chemical Release Inventory System tracks releases of chemicals listed in the TRI according to chemical type, quantity, and nature of the release.

## Organization of the Report

The remainder of this report is divided into three sections. Section II provides an overview of the scope of federal facility activities related to environmental compliance issues. Section III presents individual summaries for each of the nine environmental statutes and programs outlined above. For most programs, the data are organized to address the following issues:

- What is the universe of federal facilities that are regulated/affected?

- What is the level of inspection activity at regulated federal facilities?

- How is compliance measured? (i.e., compliance indicators)

- What actions were taken to address noncompliance? (i.e., enforcement actions)

For other environmental programs, however, compliance indicators such as the number of violations or the number and type of enforcement actions are less appropriate measures of federal facility performance. Instead, these programs focus on such issues as the quantity of toxic chemicals released into the environment, or the progress of remediation and/or decommissioning activities. The following program summaries contained in this report are organized according to these alternative issues:

- ***TRI*** -- The TRI program summary discusses the quantity of releases of chemicals to various environmental media, off-site transfers, and prevention and management of chemicals in waste at federal facilities.

- ***CERCLA*** -- The CERCLA program summary highlights the status of federal facilities within the remediation process. It describes the number of sites potentially and actually awaiting cleanup, as well as the number of sites at which cleanup has begun or been completed.

- ***BRAC*** -- The BRAC program summary contains information on the number and location of military installations slated for closure and their cleanup status.

Lastly, Section IV of this report presents inspection and enforcement highlights of actions taken by EPA.

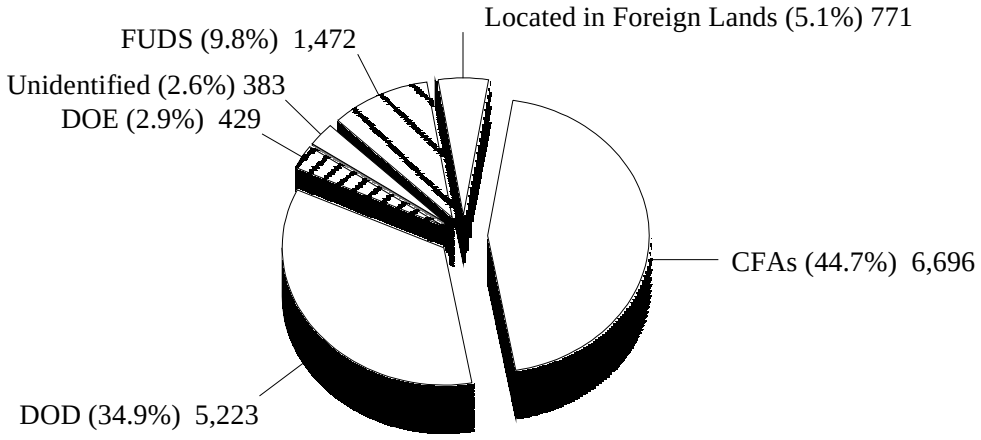
# II. OVERVIEW OF FEDERAL FACILITIES

The federal government defines federal facilities as all buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property owned by or constructed or manufactured and leased to the federal government. The size of the federal government, in terms of personnel and real estate holdings, is substantial. For example, the federal government currently employs more than 2.6 million people and owns about 30 percent of the nation's total surface area (approximately 650 million acres).[1] Four federal entities (Forest Service, Bureau of Land Management, Fish and Wildlife Service, and National Park Service) within two federal agencies (Department of Agriculture and Department of Interior) are responsible for managing 95 percent of these lands. The majority of the remaining land is managed by Department of Energy (DOE) and Department of Defense (DOD).

Although all federal facilities are potentially subject to environmental regulations, most are not involved in activities that would trigger requirements to comply with regulations. According to IDEA, there are approximately 15,000 federal facilities that engage in some type of activity directly affected by environmental requirements. These facilities can be grouped into six broad categories -- DOD, DOE, Civilian Federal Agencies (CFAs), Formerly Used Defense Sites (FUDS), federal facilities located in foreign lands, and unidentified federal facilities (see Exhibit II - 1 below).

**Exhibit II - 1**

**Federal Facilities by Agency Category** (FY 1996)




Total = 14,974 Federal facilities

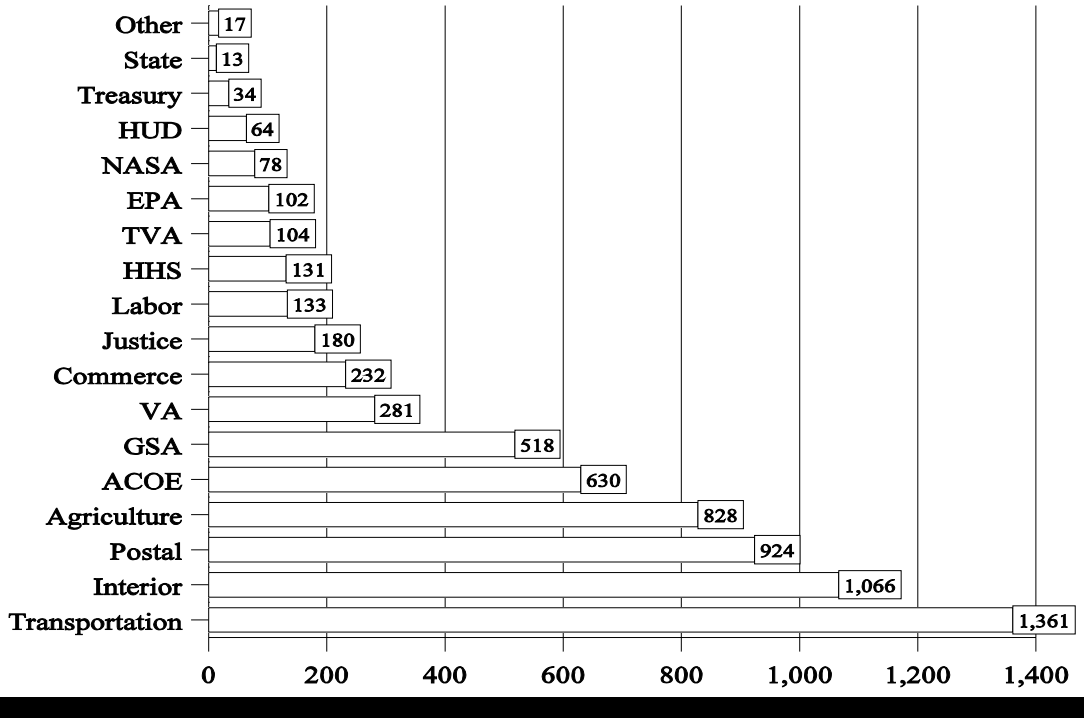
[1] U.S. GAO, "Land Ownership: Information on the Acreage, Management, and Use of Federal and Other Lands," RCED-96-40, 1996. Personnel figure obtained from FY 1996 Bureau of Labor Statistics data.

DOD and DOE facilities typically include large installations (e.g., military bases, storage depots), manufacturing/fabrication plants, and laboratories/research facilities. The universe of CFA facilities is somewhat more diverse and includes organizations such as the Department of the Interior, General Services Administration, Department of Justice, Tennessee Valley Authority, NASA, Environmental Protection Agency, and many others.

Exhibit II - 2 shows the distribution of CFA facilities according to individual agencies. Department of Transportation facilities comprise the largest single share (20.3 percent) of all CFAs, followed by the Department of Interior (15.9 percent), the Postal Service (13.8 percent), and the Department of Agriculture (12.4 percent).

**Exhibit II - 2**

**Distribution of CFA Facilities by Agency**




## Missions of the Federal Agencies

DOD is charged with defending the interests of the United States anywhere in the world. As such, DOD maintains thousands of installations to provide the necessary infrastructure for the armed services to meet this mission. Installations range in size from a few acres to thousands of square miles; their missions range from logistics and training to manufacturing and rebuilding aircraft and ships. Many of these installations are the equivalent of small cities, and thus they

possess all of the infrastructure (e.g., hospitals, sewage treatment plants, roads, airports) associated with city environments. Much of the support activity associated with DOD's mission is industrial, therefore, DOD installations face compliance issues relating to air and water pollution and solid/hazardous waste generation.

DOE is involved in electric power generation and transmission, fossil and non-fossil fuel research, petroleum storage, nuclear weapons research, and nuclear weapons production. Many of DOE's approximately 400 installations are dedicated to laboratory research. DOE laboratories work on a variety of issues including solar energy, battery development, energy transmission methods, atomic energy, fossil fuels, and nuclear weapons. Some laboratories are located on large compounds such as Savannah River, Los Alamos, and Oak Ridge, while others are part of university systems such as the Fermi Lab in Chicago. Like DOD, the large-scale manufacturing and industrial nature of many DOE activities presents DOE with a broad range of environmental compliance issues.

CFA facilities range in size and scope from single-purpose buildings to extensive multi-purpose compounds. Activities include vehicle fleet management, construction, facility operation, scientific and medical research, materials storage and shipment, and many others. On an individual facility basis, many CFA facilities have fewer environmental concerns; however, the diversity of CFA activities implies that as a group, they face environmental compliance issues as extensive as those faced by DOD and DOE facilities.

When discussing the entire community of federal facilities, it is important to recognize that not all federal facilities are owned and operated by the federal government. At numerous federal facilities and on many public lands, a private party or private parties are involved. Thus, in addition to traditional government-owned government-operated (GOGO) facilities, the federal facility community includes government-owned contractor-operated (GOCO) facilities, privately-owned and leased by the government (POGO) facilities, jointly-owned and contractor-operated (JOCO) facilities, as well as many other ownership/operating arrangements.

# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| Federal Facilities by Agency Category | IDEA | 6/18/97 | -- |
| Distribution of Domestic CFA Facilities by Agency | IDEA | 6/18/97 | -- |

# III. ENVIRONMENTAL PROGRAM STATUS

This section presents environmental compliance summaries for the following statutes and programs:

- Resource Conservation and Recovery Act;
- Clean Water Act;
- Clean Air Act;
- Safe Drinking Water Act;
- Toxic Substances Control Act;
- Federal Insecticide, Fungicide, and Rodenticide Act;
- Toxics Release Inventory;
- Comprehensive Environmental Response, Compensation, and Liability Act; and
- Base Realignment and Closure.

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# RESOURCE CONSERVATION AND RECOVERY ACT

RCRA Subtitle C provides a regulatory framework for ensuring that the following objectives are met:

- ➤ Protecting human health and the environment from potential adverse effects of improper hazardous waste management; and
- ➤ Reducing or eliminating the generation of hazardous waste as expeditiously as possible.

To achieve these objectives, RCRA authorizes EPA to regulate the generation, treatment, storage, transportation, and disposal of hazardous waste (referred to as the "cradle to grave" management system).

Generators of RCRA-regulated waste must obtain an EPA ID number; prepare hazardous waste for transport; and comply with the accumulation and storage, record keeping, and reporting requirements. They are also responsible for tracking waste through a manifest system. The manifest system creates a written record of the chain-of-custody from the time a waste leaves a generator until it reaches its final disposal site. Transporters must obtain an EPA ID number, comply with the manifest system, and address any hazardous waste discharges. Treatment, storage, and disposal facilities (TSDFs) are subject to record keeping and reporting requirements and technical standards covering treatment and disposal methods, as well as the location, construction, and operation of disposal sites. Finally, both generators and TSDFs may be subject to land disposal restrictions requiring treatment of the waste before it is land-disposed.

## Applicability of RCRA to Federal Facilities

Federal facilities have broad compliance responsibilities under RCRA. The most sweeping of these is RCRA §6001, which subjects federal facilities to RCRA civil, administrative, and criminal penalties and makes federal employees personally liable for RCRA criminal penalties. Other relevant RCRA responsibilities for federal facilities include overseeing contractor-operated facilities and cooperating with EPA inspections.

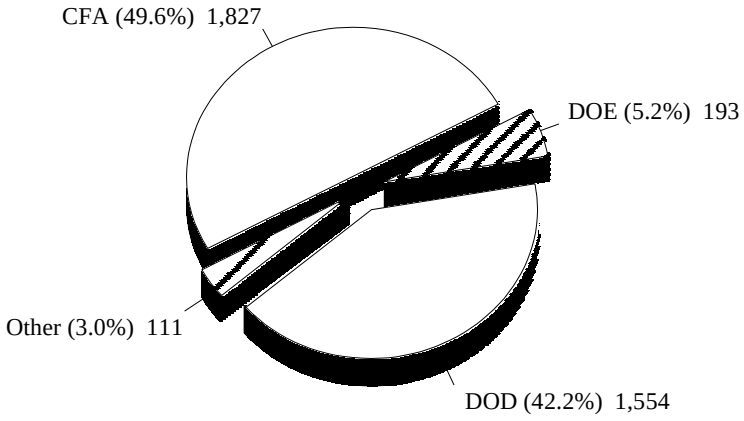
## RCRA Universe

In 1996, there were 309,893 facilities in the RCRA universe. The 3,685 federal RCRA facilities represent approximately 1.2 percent of this total. As shown below in Exhibit III - 1, 42.2 percent of the federal facilities are DOD facilities, 5.2 percent are DOE facilities, 49.6

percent are CFA facilities, and another 3.0 percent are unidentified by agency. Since FY 1994, the number of RCRA federal facilities has increased from 2,580.[3]

**Exhibit III - 1**

**Universe of RCRA Federal Facilities by Agency Category (FY 1996)**




Total = 3,685 RCRA Federal Facilities

RCRA facilities can be subdivided into three categories or handler types: generators, transporters, and TSDFs[4]. In addition, a small number of facilities are classified as non-notifiers. Non-notifiers are RCRA facilities that have been identified through sources other than notification and are suspected of engaging in RCRA-regulated activities without proper authority. Generators make up the largest share of all RCRA facilities (94.6 percent), followed by transporters, and TSDFs (3.6 percent and 1.1 percent respectively).

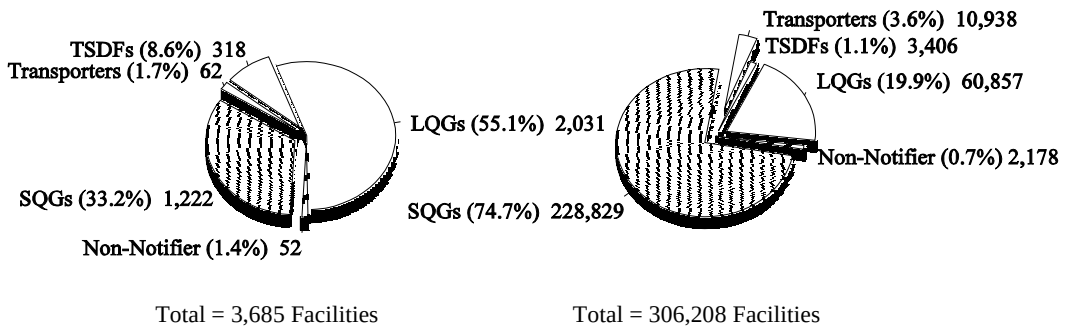
[3] The State of Federal Facilities FY 1993-94

[4] EPA frequently further subdivides TSDFs into combustion facilities, land disposal facilities, and treatment/storage facilities.

As can be seen in Exhibit III - 2, the distribution of federal facilities by handler type differs from non-federal facilities in at least three important respects. First, the share of the universe comprised by TSDFs is eight times greater among federal facilities than among non-federal facilities. Second, transporters are more than twice as common within the non-federal sector than they are within the federal sector. In addition, Large Quantity Generators (LQGs) account for the majority (55.1%) of handler types at federal facilities, whereas Small Quantity Generators (SQGs) account for the majority (74.7%) at non-federal facilities.

**Exhibit III - 2**

**RCRA Facilities by Handler Type (FY 1996)**

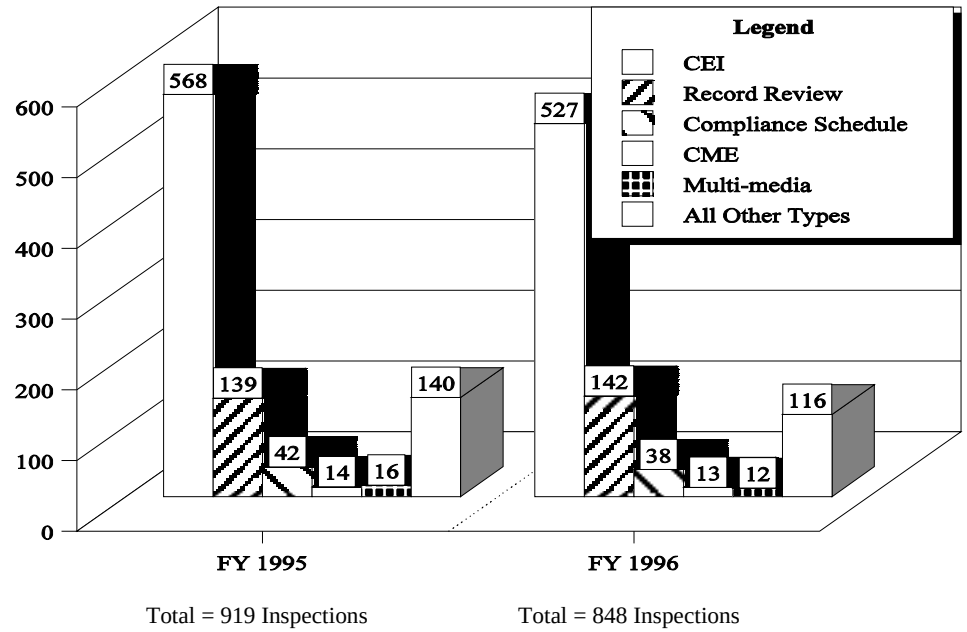



## RCRA Inspections

RCRA inspections range in intensity from complex comprehensive compliance evaluation inspections (CEI) to financial and non-financial record reviews. Exhibit III - 3 shows that CEIs were the single most common type of inspection performed, followed by record reviews and compliance schedule inspections. Multi-media inspections and ground water monitoring inspections, which include comprehensive ground water evaluations (CMEs), were far less common, each constituting under two percent of RCRA inspections during FY 1995 and FY 1996. Inspections collectively classified as "All Other Types" include corrective action oversight inspections, case development inspections, and operations and maintenance inspections.

## Exhibit III - 3

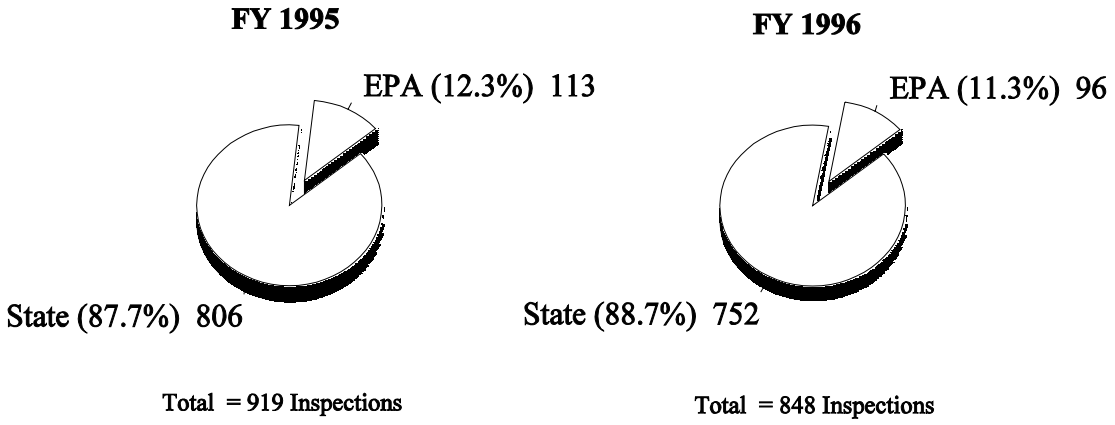
### RCRA Inspections at Federal Facilities




To assess compliance with RCRA requirements, federal and state inspectors conducted 919 and 848 inspections at federal facilities in FY 1995 and FY 1996, respectively. Although it still maintains significant policy-setting and oversight responsibilities, EPA has delegated authority to implement and administer the base RCRA program to 47 of the states and the District of Columbia. Therefore, the states took the lead on the majority of RCRA inspections during FY 1995 and 1996, including those conducted at federal facilities (see Exhibit III - 4). A breakdown of the number of inspections performed during this period within EPA Regions can be found in Exhibit III - 12.

**Exhibit III - 4**

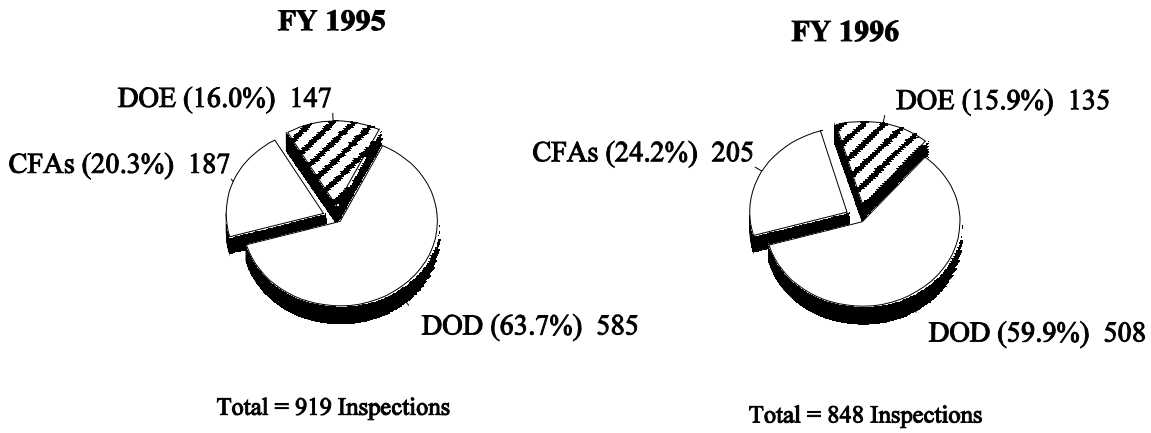
**RCRA Inspection Leads at Federal Facilities**




As shown in Exhibit III - 5, DOD's share of inspections declined by 3.8 percent of the total from FY 1995 to FY 1996, and CFA's share increased by approximately the same amount. DOE's share of RCRA inspections remained fairly constant over the same time period.

**Exhibit III - 5**

**RCRA Inspections at Federal Agencies**



## RCRA Compliance: Class I Violations

RCRA Class I violations represent deviations from regulations or other relevant operating requirements that could significantly increase the risk of improper hazardous waste management; result in releases of hazardous waste or hazardous constituents to the environment; or decrease the effectiveness of responses to such releases. In FY 1995 and FY 1996, there were a total of 132 and 103 facilities, respectively, that were cited for Class I RCRA violations. Exhibit III - 6 presents the percentage of facilities receiving Class I violations according to agency.

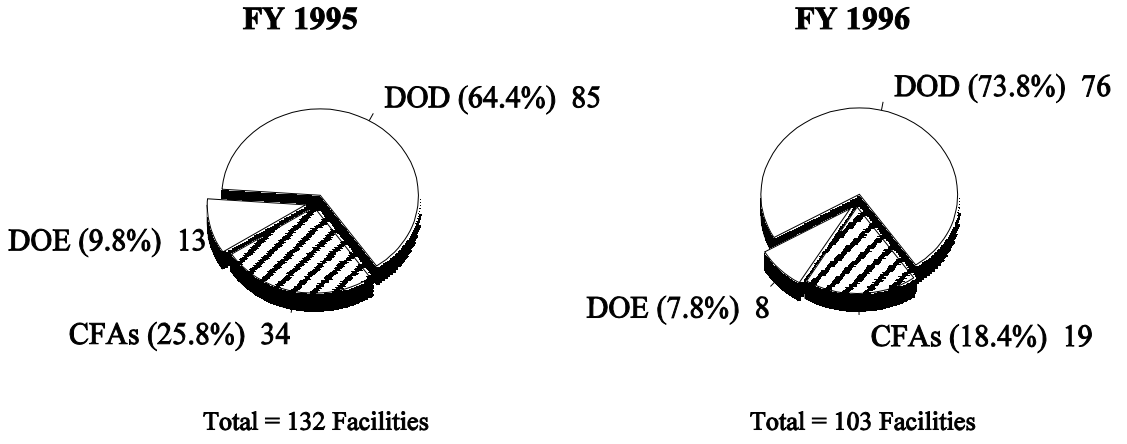
RCRA Class I violations are deviations from regulations or provisions of compliance orders, consent agreements, consent decrees, or permit conditions that could result in a failure to:

- assure that hazardous waste is destined for and delivered to authorized TSDFs;
- prevent releases of hazardous waste or constituents, both during the active and any applicable post-closure periods of the facility operation where appropriate;
- assure early detection of such releases; or
- perform emergency cleanup operations or other corrective actions for releases.

Both DOE and CFAs showed decreases in terms of their share of federal facilities with Class I violations; the percentages dropped from 9.8 percent to 7.8 percent at DOE facilities and from 25.8 percent to 18.4 percent at CFA facilities. In contrast, the percentage of DOD facilities with Class I violations increased from 64.4 percent to 73.8 percent.

**Exhibit III - 6**

**Federal Facilities with Class I Violations by Agency Category**



## RCRA Compliance Indicator

Of the federal facilities cited for Class I violations in FY 1995 and FY 1996, 71 and 64, respectively were TSDFs, which are generally considered major federal facilities under RCRA. Therefore, of the total number of inspected federal TSDFs (271 in FY 1995 and 257 in FY 1996), 73.8 percent and 75.1 percent were not cited for Class I violations in FY 1995 and FY 1996, respectively. The corresponding Class I violation "compliance rates" for the non-federal universe of inspected TSDFs were 66.8 percent and 72.8 percent. Exhibit III - 7 graphically presents this comparison.

**Exhibit III - 7**

**Percentage of Inspected TSDFs not Cited for RCRA Class I Violations**

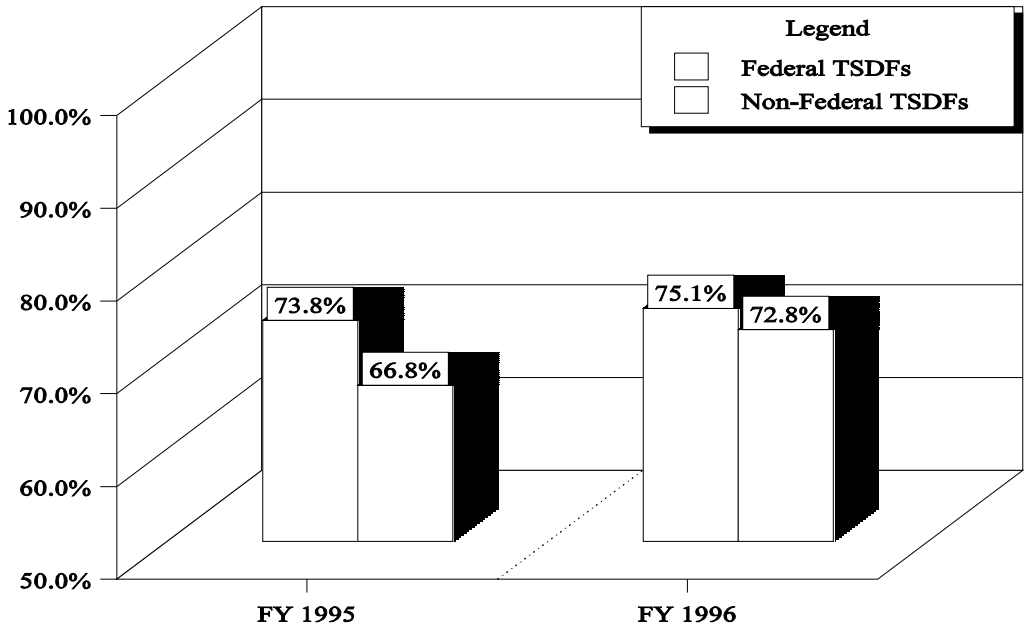



Exhibit III - 8 presents these compliance rates according to agency category. For both FY 1995 and FY 1996, compliance rates at DOD facilities were fairly constant (75 percent and 74.2 percent, respectively) and very close to the overall compliance rate for federal facilities. In FY 1995, the CFA compliance rate (78.3 percent) was slightly higher than the overall rate, while in FY 1996, the CFA compliance rate was substantially higher (94.1 percent). In contrast, RCRA compliance rates at DOE facilities were far below (58.3 percent and 69.6 percent) the overall federal facility rates for both years.

**Exhibit III - 8**
**RCRA Compliance Indicator Rates by Agency Category**

| Agency | FY 1995 | | | FY 1996 | | |
|---|---|---|---|---|---|---|
| | Inspected TSDFs | TSDFs With Class I Violations | TSDFs Without Class I Violations | Inspected TSDFs | TSDFs With Class I Violations | TSDFs Without Class I Violations |
| DOE | 24 | 10 | 14 (58.3%) | 23 | 7 | 16 (69.6%) |
| CFAs | 23 | 5 | 18 (78.3%) | 17 | 1 | 16 (94.1%) |
| DOD | 224 | 56 | 168 (75%) | 217 | 56 | 161 (74.2%) |
| Total | 271 | 71 | 200 (73.8%) | 257 | 64 | 193 (75.1%) |

## Enforcement Actions

There were a total of 321 and 269 enforcement actions taken by EPA and states against federal facilities in FY 1995 and FY 1996, respectively. Exhibit III - 9 presents a breakdown of informal versus formal enforcement actions, as well as proposed versus final penalties assessed and costs attributed to Supplemental Environmental Projects (SEPs). SEPs can be used, at EPA's discretion, as part of a settlement for projects above and beyond those required to come into compliance for cited violations and that are not already required by law or regulation.

For both years, approximately three-fourths of enforcement actions taken were informal (e.g., warning letters). Formal actions taken against federal facilities include: civil actions, consent decrees, Federal Facility Compliance Agreements (FFCAs), referrals to other enforcement authorities, judicial orders, notices of noncompliance, administrative orders, corrective action orders, and imminent hazard orders. The most commonly used formal enforcement action is the RCRA §3008(a) administrative order; approximately 78 percent (65 out of 83) and 71 percent (44 out of 62) of formal enforcement actions taken in FY 1995 and FY 1996, respectively, were administrative orders.

Proposed penalties under RCRA increased by $189,657 (12.3 percent) from FY 1995 to FY 1996. In contrast, final penalties dropped from $1,601,213 to $794,631, a decrease of over 50 percent. Final SEP costs rose from $355,831 to $622,195 over the same time period, representing an increase of nearly 75 percent.

## Exhibit III - 9

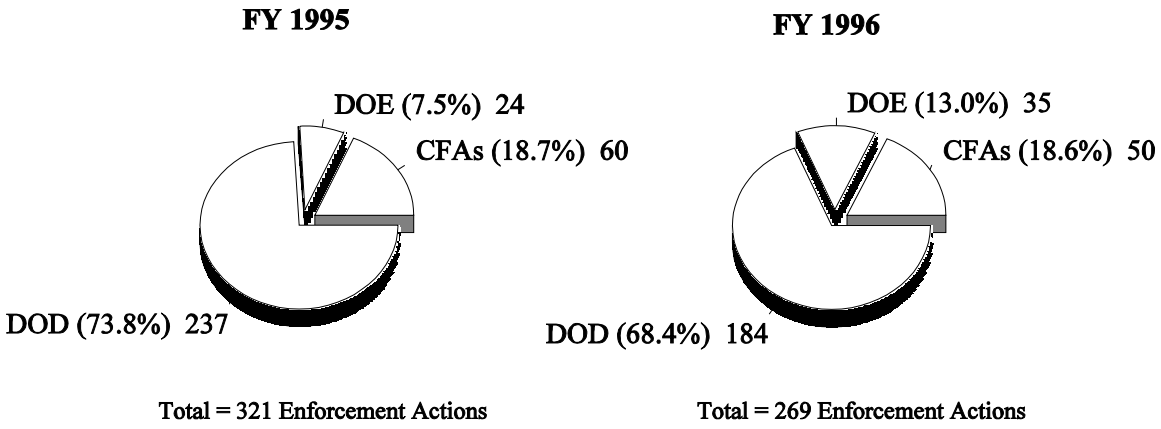
## RCRA Enforcement Actions at Federal Facilities

| Type of Action | FY 1995 Total | FY 1996 Total |
|---|---|---|
| Informal | 238 (74.1%) | 207 (77.0%) |
| Formal | 83 (25.9%) | 62 (23.0%) |
| **All Enforcement Actions** | **321** | **269** |
| Proposed Penalties | $ 1,536,776 | $ 1,726,433 |
| Final SEP Cost | $ 355,831 | $ 622,195 |
| Final Penalties Collected (excluding SEP costs) (04/17/97) | $ 1,601,213 | $ 794,631 |

Exhibit III - 10 reveals that from FY 1995 to FY 1996, DOE saw its share of enforcement actions increase, while DOD and CFA facilities experienced modest declines. As one might expect, the distribution of enforcement actions across agencies correlates fairly well with the distribution of Class I violations at federal facilities (see Exhibit III - 6).

## Exhibit III - 10

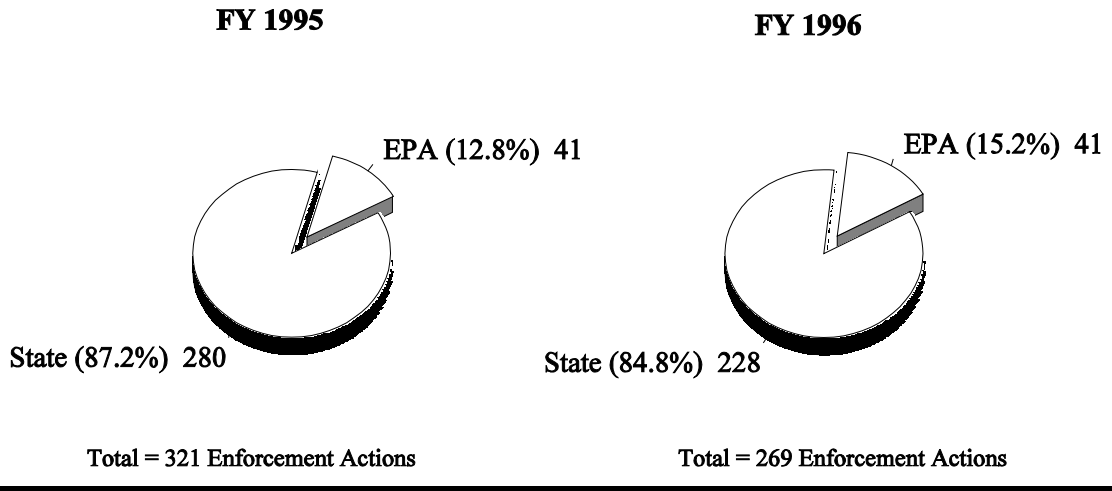
## RCRA Enforcement Actions at Federal Agencies



As shown in Exhibit III - 11, the vast majority of enforcement actions at federal facilities are taken under state lead. In FY 1995, 87.2 percent (280 out of 321) enforcement actions were led by states; in FY 1996 the state share decreased slightly to 84.8 percent (228 out of 269).

**Exhibit III - 11**

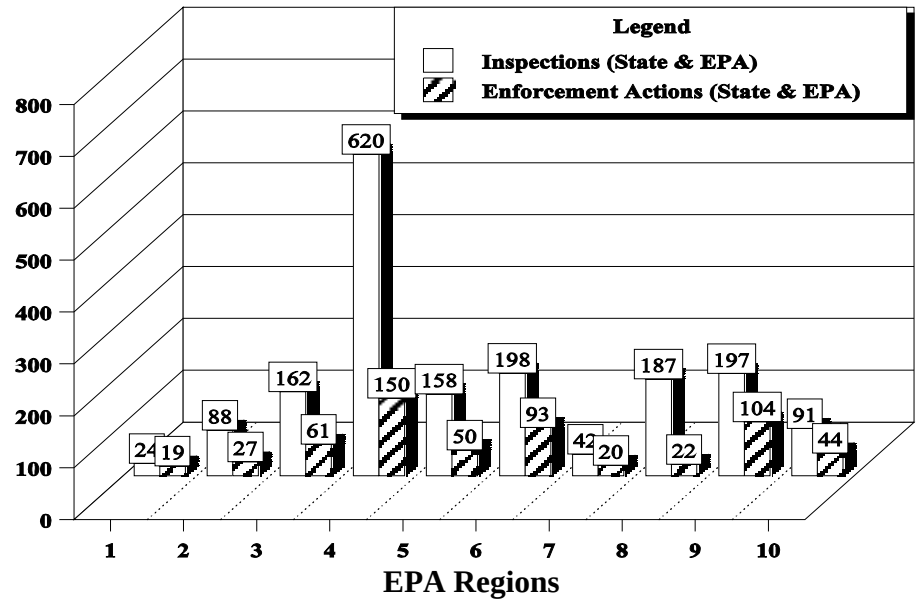
**RCRA Enforcement Leads**




For the two-year period FY 1995 and FY 1996, most enforcement actions taken at federal facilities occurred in Regions 4, 6, and 9. These three Regions also were among the top in terms of the number of inspections conducted. Exhibit III - 12 presents a breakdown of inspection and enforcement activity by Region. The greatest number of inspections occurred in EPA Region 4; this Region also had the greatest number of enforcement actions.

## Exhibit III - 12

## RCRA Inspections and Enforcement Actions by EPA Region (FY 1995-96)




Total = 1,767 Inspections & 590 Enforcement Actions

# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| Universe of RCRA Federal Facilities by Agency Category | IDEA | 04/17/97 | -- |
| RCRA Facilities by Handler Type | IDEA | 04/17/97 | -- |
| RCRA Inspections at Federal Facilities | IDEA | 04/17/97 | -- |
| RCRA Inspection Leads at Federal Facilities | IDEA | 04/17/97 | -- |
| RCRA Inspections at Federal Agencies | IDEA | 04/17/97 | -- |
| Federal Facilities with Class I Violations by Agency Category | IDEA | 04/17/97 | -- |
| Percentage of Inspected TSDFs not Cited for RCRA Class I Violations | IDEA | 04/17/97 | -- |
| RCRA Compliance Indicator Rates by Agency Category | IDEA | 04/17/97 | -- |
| RCRA Enforcement Actions at Federal Facilities | IDEA& FFEO Data | 04/17/97 | -- |
| RCRA Enforcement Actions at Federal Agencies | IDEA | 04/17/97 | -- |
| RCRA Enforcement Leads | IDEA | 04/17/97 | -- |
| RCRA Inspections and Enforcement Actions by EPA Region | IDEA | 04/17/97 | -- |

# CLEAN WATER ACT

The CWA and its 1987 amendments are the primary statutes governing the restoration and maintenance of the chemical, physical and biological integrity of the nation's waters. Its principal objectives are to:

- Eliminate the discharge of pollutants into U.S. navigable waters;
- Achieve an interim goal of water quality which, wherever attainable, provides for the protection and propagation of shellfish, fish, and wildlife and provides for recreation in and on the water; and
- Prohibit the discharge of pollutants in toxic amounts.

To achieve these objectives, CWA authorizes EPA and states to regulate, implement, and enforce compliance with guidelines and standards to control the direct and indirect discharge of pollutants to U.S. waters.

Point source dischargers of wastewater must submit an application for a NPDES permit. NPDES permits contain water quality-based and/or technology-based standards for effluent discharges, compliance schedules, and monitoring and reporting requirements. Federal facilities generating stormwater point source discharges may be required to have a NPDES permit. In addition, federal facilities that discharge to Publicly Owned Treatment Works (POTWs) are subject to national pretreatment standards, categorical pretreatment standards, and state or local pretreatment standards. This chapter, however, focuses on the NPDES permit program. As of FY 1996, 36 states were authorized to regulate the NPDES program at federal facilities.

## Applicability of CWA to Federal Facilities

Federal facilities have broad compliance responsibilities under CWA. The most sweeping of these is CWA §313, which waives the traditional immunity of federal agencies and requires federal facilities to comply with federal, state, interstate, and local requirements. Important CWA responsibilities for federal facilities include complying with EPA inspections and procedural and substantive requirements (including recordkeeping, reporting, payment of service charges and permits). In addition, §313 subjects federal employees to criminal, but not civil penalties.

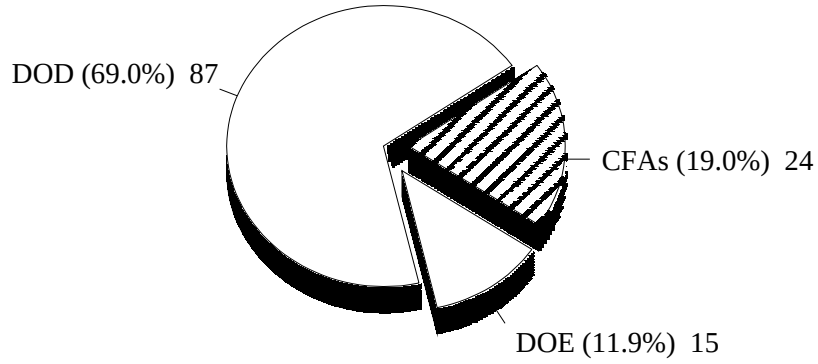
## NPDES Universe

At the end of FY 1996, federal facilities comprised approximately 1.9 percent (126) of the total universe of 6,630 major facilities regulated under the NPDES program. As shown in Exhibit III - 13, of these 126 facilities, 69.0 percent were DOD, 11.9 percent were DOE, and 19.0 percent were CFA facilities.

**Major facilities** are defined as those that contribute a larger share of pollutants discharged to surface waters. Designation of major (versus minor) facilities allows the NPDES program to focus its resources effectively and efficiently.

**Exhibit III - 13**

**Major Federal NPDES Facilities by Agency Category (FY 1996)**




Total = 126 Facilities

## NPDES Inspections

The number of NPDES inspections at federal facilities decreased by 15.5 percent, from 187 in FY 1995 to 158 in FY 1996. Historically, most NPDES inspections are conducted by the states. As shown in Exhibit III - 14, this remained the case in FY 1995 and FY 1996, with more than 80 percent of inspections led by states.

**Exhibit III - 14**

**NPDES Inspection Leads at Major Federal Facilities**

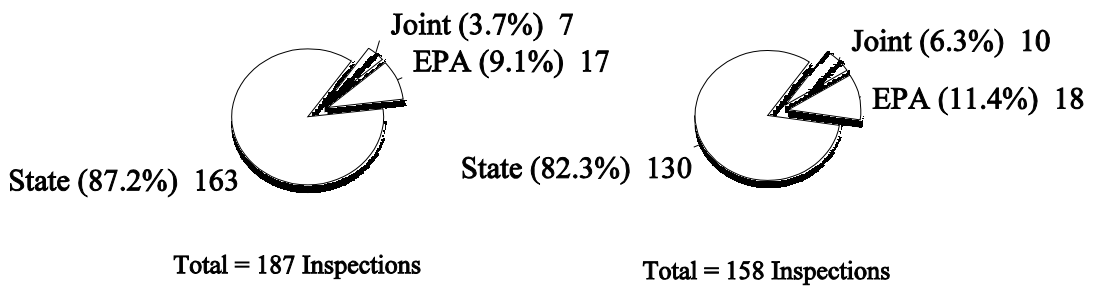
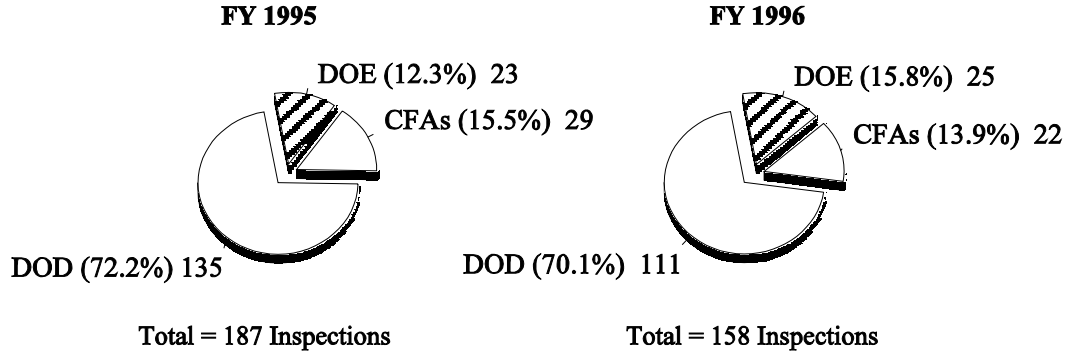



Exhibit III - 15 presents a breakdown of NPDES inspections at federal agencies. The distribution of inspections by agency remained relatively constant during FY 1995 and FY 1996.

**Exhibit III - 15**

**NPDES Inspections at Major Federal Facilities by Agency Category**



## NPDES Compliance Indicator

Exhibit III - 16 shows that the number of major federal facilities determined to be in significant noncompliance (SNC) increased from 30 in FY 1995 to 34 in FY 1996. As a percentage of major federal facilities, this represents an increase from 23.8 to 27.0 percent.

SNC is characterized by a violation of significant magnitude and/or duration to be considered among the EPA's priorities for review and/or response. There are several categories of violations that can be considered "significant;" this report includes all categories noted in the NPDES permit compliance system. Because the definition of SNC is EPA policy, it can change or evolve as the NPDES program changes.

**Exhibit III - 16**

**NPDES Compliance at Major Federal Facilities**

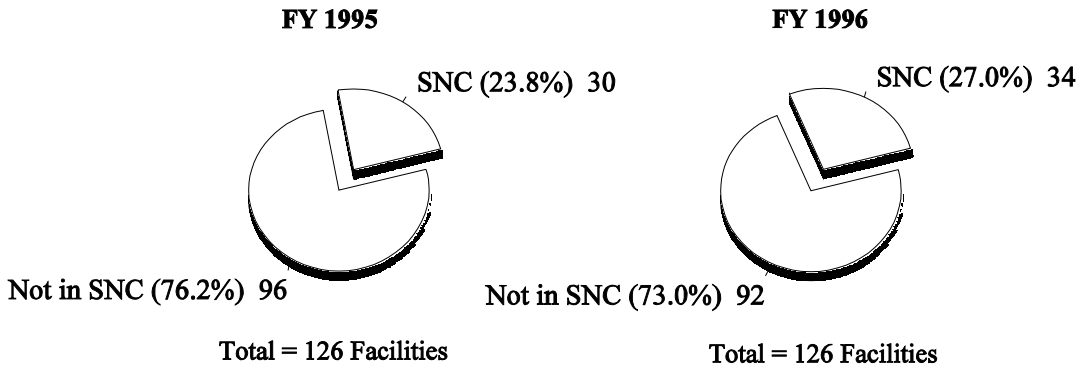


Exhibit III - 17 presents federal facilities in SNC according to agency. For FY 1995 and FY 1996, DOD facilities comprised 60 percent and 76.5 percent, respectively, of federal facilities in SNC. Both the number of CFA and DOE facilities in SNC and their relative share decreased from FY 1995 to FY 1996.

**Exhibit III - 17**

**Major Federal NPDES Facilities in SNC by Agency Category**

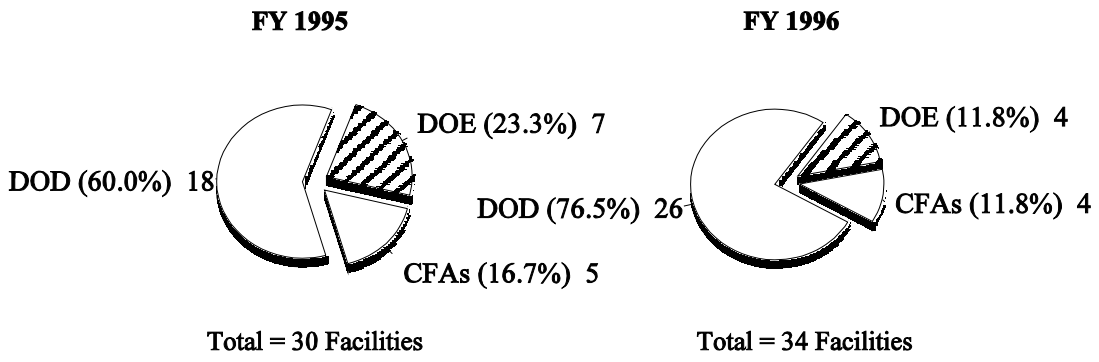


Exhibit III - 18 compares the percentage of major federal facilities not in SNC against the corresponding percentage for the universe of major non-federal NPDES facilities. As shown in the Exhibit, in FY 1995, the percentage of major federal facilities not in SNC was 76.2 percent, 7.9 percent lower than for major non-federal facilities. In FY 1996, compliance rates for all major facilities declined slightly, though major federal facilities still experienced lower compliance rates compared to the non-federal universe (73.0 percent vs. 79.0 percent).

**Exhibit III - 18**

**Federal vs Non-Federal NPDES Compliance Rates (% not in SNC)**

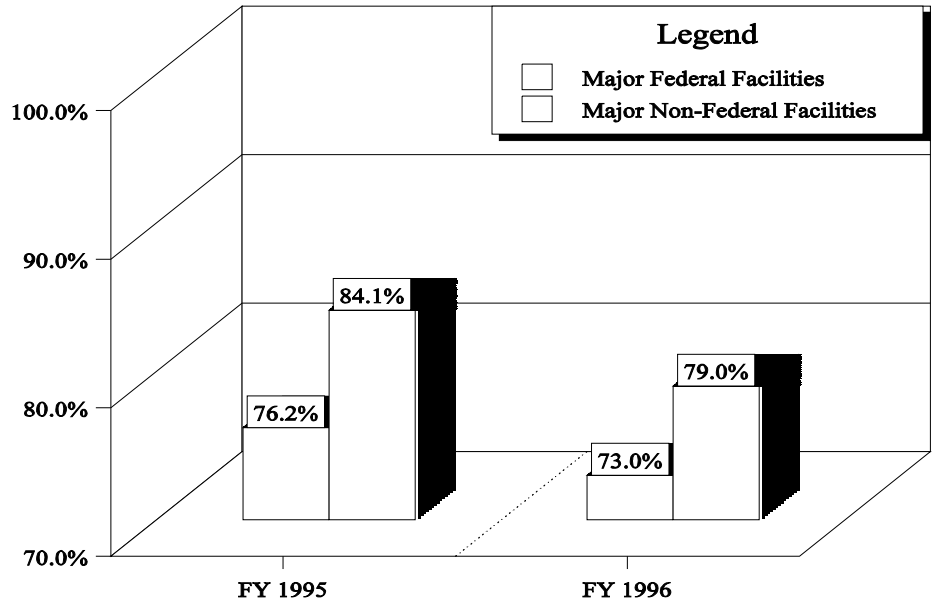



Exhibit III - 19 presents NPDES compliance rates by agency category. DOD facilities exhibited a significant decrease in the percentage of facilities not in SNC from FY 1995 to FY 1996 (79.3 percent to 70.1 percent). In contrast, both DOE and CFA facilities experienced improvements in their respective compliance rates over the same period; however, the relatively large share of all major federal NPDES facilities accounted for by DOD tended to bring down overall compliance rates.

**Exhibit III - 19**
**NPDES Compliance Indicator Rates by Agency Category**

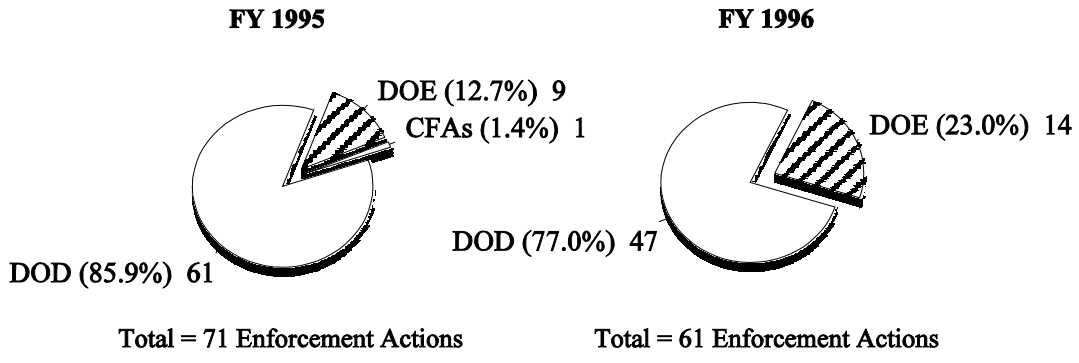
| Agency | Major Facilities | SNC | Not in SNC | Major Facilities | SNC | Not in SNC |
|---|---|---|---|---|---|---|
| DOD | 87 | 18 | 69 (79.3%) | 87 | 26 | 61 (70.1%) |
| CFAs | 24 | 5 | 19 (79.2%) | 24 | 4 | 20 (83.3%) |
| DOE | 15 | 7 | 8 (53.3%) | 15 | 4 | 11 (73.3%) |
| Total | 126 | 30 | 96 (76.2%) | 126 | 34 | 92 (73.0%) |

## NPDES Enforcement Actions

Exhibit III - 20 shows the distribution across federal agencies of formal and informal enforcement actions taken under NPDES by EPA and states. Because the majority of federal facility NPDES permittees are DOD facilities, as expected, the majority of enforcement actions were taken against DOD facilities. However, DOD facilities' share of enforcement actions decreased by 8.9 percent from FY 1995 to FY 1996.

**Exhibit III - 20**

**NPDES Enforcement Actions at Federal Agencies**




Overall, EPA and states took 61 enforcement actions in FY 1996 to address NPDES noncompliance at federal facilities. This represents a decrease of approximately 14 percent relative to FY 1995.

As shown in Exhibit III - 21, the share of informal enforcement actions (i.e., phone calls, warning letters, and informal NOVs) remained fairly constant from FY 1995 to FY 1996, while the percentage of formal actions (i.e., FFCAs, Administrative Orders, and formal NOVs) decreased from nearly one-third to slightly more than one-tenth of the total for the year. The percentage of other enforcement actions (i.e., unspecified pending actions and referrals) increased slightly over the same period.

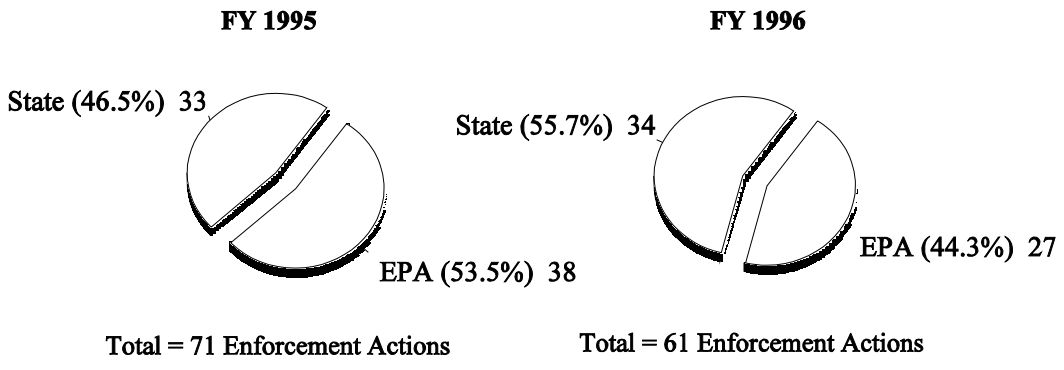
**Exhibit III - 21**
**Type of NPDES Enforcement Actions at Federal Facilities**

| Type of Enforcement Action | Number of Actions in FY 1995 | Number of Actions in FY 1996 |
|---|---|---|
| Informal | 42 (59.2%) | 43 (70.5%) |
| Formal | 20 (28.2%) | 7 (11.5%) |
| Other | 9 (12.7%) | 11 (18.0%) |
| **TOTAL** | **71** | **61** |

Between FY 1995 and FY 1996, there was a substantial decrease in the share of enforcement actions taken by EPA relative to the states. As shown in Exhibit III - 22, in FY 1995 more than 53 percent of enforcement actions were EPA led; however, in FY 1996 the distribution nearly reversed itself, with nearly 56 percent of all actions being led by the states.

**Exhibit III - 22**

**NPDES Enforcement Leads at Federal Facilities**



# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| Major Federal NPDES Facilities by Agency Category | IDEA | 04/23/97 | -- |
| NPDES Inspection Leads at Major Federal Facilities | IDEA | 03/27/97 | -- |
| NPDES Inspections at Major Federal Facilities by Agency Category | IDEA | 03/27/97 | -- |
| NPDES Compliance at Major Federal Facilities | IDEA | 04/23/97 | -- |
| Major Federal NPDES Facilities in SNC by Agency Category | IDEA | 04/23/97 | -- |
| Federal vs Non-Federal NPDES Compliance Rates | IDEA | 04/23/97 | -- |
| NPDES Compliance Indicator Rates by Agency Category | IDEA | 04/23/97 | -- |
| NPDES Enforcement Actions at Federal Agencies | IDEA | 04/17/97 | -- |
| Type of NPDES Enforcement Actions at Federal Facilities | IDEA | 04/17/97 | -- |
| NPDES Enforcement Leads at Federal Facilities | IDEA | 04/17/97 | -- |

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# CLEAN AIR ACT

The CAA was passed and later amended by the Clean Air Act Amendments (CAAA) of 1990, with the goal of protecting and enhancing the nation's air resources. Title 1 of the CAA establishes the statutory authority for EPA's National Ambient Air Quality Standards (NAAQS) that are to be applied uniformly throughout regions in the United States. The Air Quality Act of 1967 required the designation of AQCRs based on "jurisdictional boundaries, urban industrial concentrations, and other factors including atmospheric areas necessary to provide adequate implementation of air quality standards" [Section 107(a) (1967)]. Today, the United States is divided into 247 AQCRs. Many AQCRs are subdivided into smaller areas based on municipal boundaries, latitudes and longitudes, and other boundaries. A complete list of AQCRs (and their attainment status) is codified at 40 CFR Part 81.

To meet NAAQS, states have historically required sources of air pollution to obtain preconstruction permits. The type of permit and subsequently the level of control required by the permit is dependent on the attainment status of NAAQS, which establishes primary and secondary standards for six criteria pollutants ($SO_2$, $NO_x$, VOC, PM, CO, Lead). Areas meeting the NAAQS are considered in "attainment," while areas not meeting the NAAQS are in "nonattainment." Sources wishing to begin construction must go through the construction permit review process under one of two programs, depending on whether the NAAQS is in attainment or nonattainment.

- ***New Source Review (NSR)*** allows for industrial growth in nonattainment areas if certain stringent requirements are met for new major sources and new major modifications, including emissions offsets, state-wide compliance for all sources, public notification, and installation of control equipment to meet the Lowest Achievable Emission Rate (LAER); and

- ***Prevention of Significant Deterioration (PSD)*** allows for industrial growth in attainment areas while protecting air quality. The program applies to new major sources and new major modifications and requires installation of the Best Available Control Technology (BACT), establishment of maximum allowable emissions increases or increments, performance of impact analyses by source, and notification of the public.

There are three other major programs that may apply to federal sources depending on the nature and size of their operations. These programs are described below.

- ***New Source Performance Standards (NSPS)*** are technology-based emission limits for new, modified, or reconstructed stationary sources of emissions promulgated under the authority of Section 111 and codified at 40 CFR Part 60;

- ***National Emissions Standards for Hazardous Air Pollutants (NESHAPs)*** are codified at 40 CFR Parts 61 and 63 under the authority of Section 112. NESHAPs codified in Part 61 are health-based standards that apply to new and existing sources at specific source categories. NESHAPs codified in Part 63 are referred to as "MACT" (for Maximum Achievable Control Technology) standards, and are technology-based for new and existing sources within specific categories; and

- ***Title V Permit Program*** requires all major sources of air pollutants to submit a permit application and obtain a permit to control emissions. Major sources are defined as sources that emit or have the potential to emit more than threshold amounts. Before the inception of the Title V permit program, states required various preconstruction, operating, and other permits. Title V permits are designed to address all sources of emissions for major sources under a single consolidated permit.

## Applicability of CAA to Federal Sources

Federal sources have broad compliance responsibilities under the CAA. Section 7418 of the CAA requires that federal sources comply with all federal, state, interstate, and local requirements, as well as the applicable provisions of a valid inspection and maintenance program.

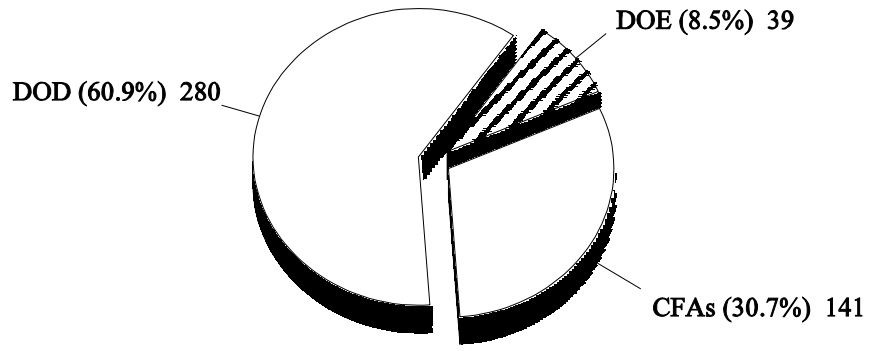
## CAA Universe

In FY 1996, 460 major federal sources existed within the universe of 36,834 major sources regulated under all programs within the CAA. As shown in Exhibit III - 23, 60.9 percent of these federal sources were DOD, 8.5 percent were DOE, and 30.7 percent were CFAs.

**Major Sources --** The definition differs by program; under NSPS/NSR, a source is considered major if it emits or has the potential to emit over 100 tons per year (tpy) of a regulated pollutant. For Hazardous Air Pollutants (HAPs), the limit is 10 tpy of any single HAP or 25 tpy of two or more HAPs.

**Exhibit III - 23**

**CAA Major Federal Sources by Agency Category (FY 1996)**



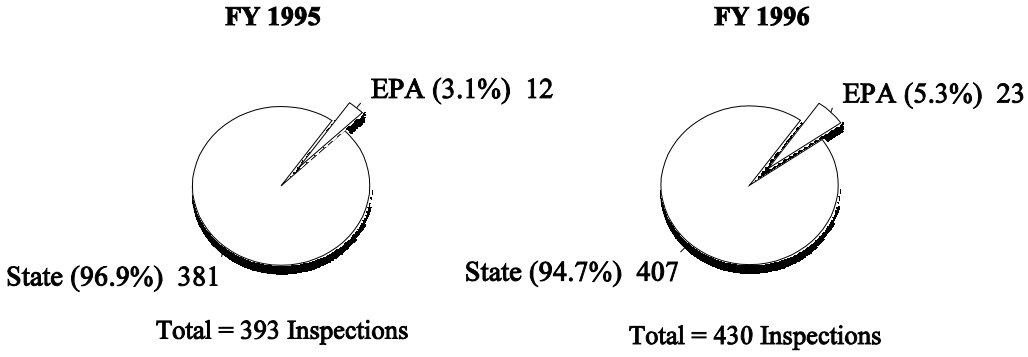

Total = 460 Major Sources

## CAA Inspections

Exhibit III - 24 below reveals that states continued to take a lead role on the vast majority of CAA inspections in FY 1995 and FY 1996 (96.9 percent and 94.7 percent, respectively).

**Exhibit III - 24**

**CAA Inspection Leads**

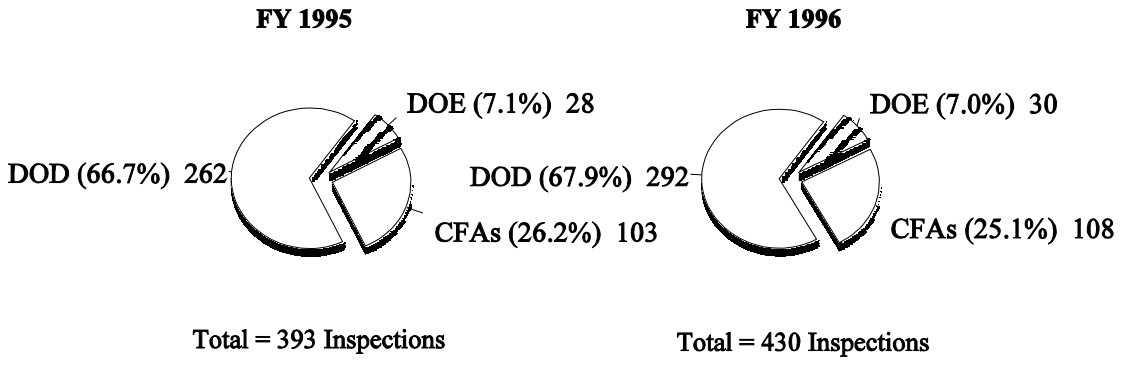



EPA and state inspectors conducted a total of 430 CAA inspections of major federal sources during FY 1996, an increase of almost ten percent relative to FY 1995. Some of these

sources were inspected more than once during the year -- the actual number of major federal sources inspected was 244 in FY 1995 and 224 in FY 1996. As shown in Exhibit III - 25, the distribution of EPA and state inspections across agencies remained relatively unchanged from FY 1995 to FY 1996.

**Exhibit III - 25**

**CAA Inspections by Agency Category**




## CAA Compliance Indicator

**Out of Compliance** -- Sources that have exceeded emissions standards and/or violated procedural requirements (e.g., failing to meet a compliance schedule, or failing to follow monitoring, recordkeeping and reporting protocols) are deemed out of compliance.

Under the CAA, federal sources may be subject to compliance requirements under multiple programs (e.g., NESHAP and NSPS). A major source found to be in compliance with the provisions of one program, yet out of compliance with those of another, is considered to be out of compliance. As shown in Exhibit III - 26, compliance rates for major federal sources remained fairly constant from FY 1995 to FY 1996. Slightly more than 88 percent of federal sources remained in compliance with all applicable provisions of the CAA. Sources identified as "unknown" indicate that EPA or the state was unable to determine the compliance status of the source due to a lack of data, malfunctioning monitoring equipment, or other reasons. In addition, for both FY 1995 and FY 1996, 22 sources were not considered for compliance rate purposes due to a lack of applicable state regulations against which to assess compliance.

**Exhibit III - 26**

**CAA Compliance Indicator Rates at Federal Sources**

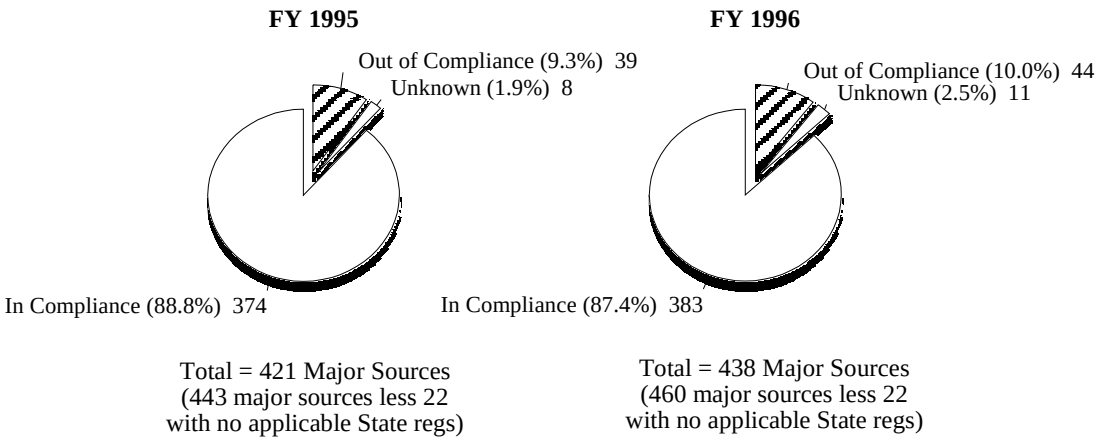



Exhibit III - 27 presents CAA compliance data across agencies for FY 1995 and FY 1996. DOD compliance rates were higher than both DOE and CFA compliance rates for FY 1995. CFA and DOD compliance rates both decreased by approximately 1.5 percent from FY 1995 to FY 1996. DOE compliance rates remained unchanged.

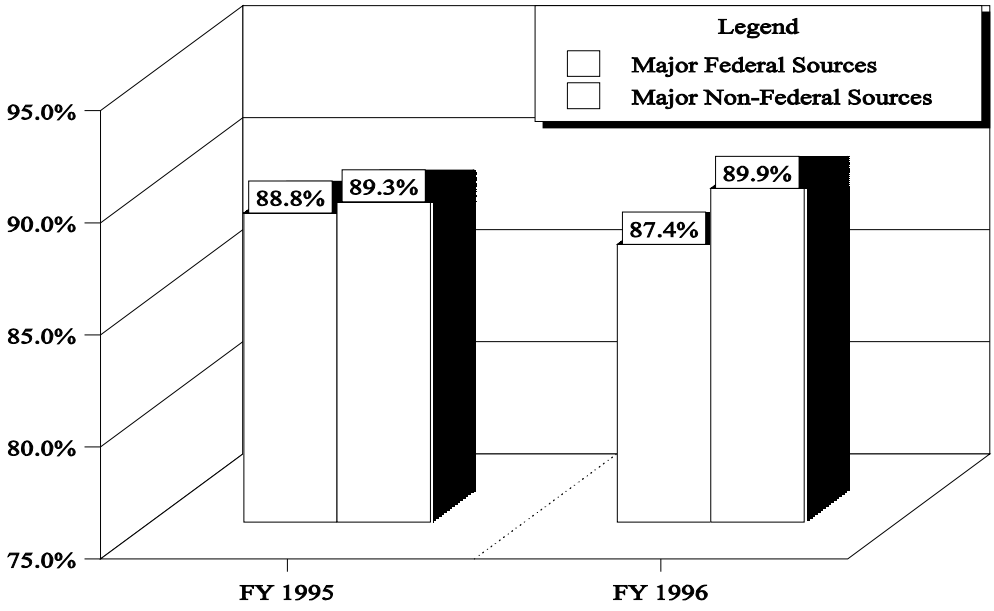
**Exhibit III - 27**
**CAA Compliance Indicator Rates by Agency Category**

| Agency | Number In Compliance | Number Out of Compliance | Unknown | Total |
|---|---|---|---|---|
| **FY 1995** | | | | |
| DOD | 243 (92.0%) | 21 (8.0%) | 0 (0.0%) | 264 |
| CFAs | 98 (81.0%) | 17 (14.0%) | 6 (5.0%) | 121 |
| DOE | 33 (91.7%) | 1 (2.8%) | 2 (5.6%) | 36 |
| Total | 374 (88.8%) | 39 (9.3%) | 8 (1.9%) | 421 |
| **FY 1996** | | | | |
| DOD | 249 (90.5%) | 24 (8.7%) | 2 (0.7%) | 275 |
| CFAs | 101 (79.5%) | 19 (15.0%) | 7 (5.5%) | 127 |
| DOE | 33 (91.7%) | 1 (2.8%) | 2 (5.6%) | 36 |
| Total | 383 (87.4%) | 44 (10.0%) | 11 (2.5%) | 438 |

As shown in Exhibit III - 28, during FY 1995 and FY 1996, federal sources experienced slightly lower compliance rates (88.8 percent and 87.4 percent, respectively) than the rest of the regulated community. CAA compliance rates for the same two years for major non-federal sources were 89.3 and 89.9 percent, respectively.

**Exhibit III - 28**

**CAA Compliance Rates for Major Federal vs Major Non-Federal Sources**




## CAA Enforcement

EPA and states issued 21 and 25 NOVs at federal sources during FY 1995 and FY 1996, respectively, for failure to comply with provisions of the CAA. Noncompliance may involve violations of emissions standards; procedural requirements; monitoring, recordkeeping, and reporting; and/or failure to meet established compliance schedules. As shown in Exhibit III - 29, the majority of NOVs were issued against DOD sources. DOE sources were not issued any NOVs in 1995 or 1996. In addition, the distribution of enforcement actions for both years was fairly consistent with the level of inspection activities (Exhibit III - 25).

Although relative compliance rates were highest among DOD sources in FY 1995 and second only to DOE in FY 1996, (note: DOD compliance was still above 90 percent -- see

Exhibit III - 27), because they comprise a much larger portion of the universe of federal sources, DOD sources tend to receive the majority of the enforcement actions.

**Exhibit III - 29**

**CAA Enforcement Actions by Federal Agency Category**

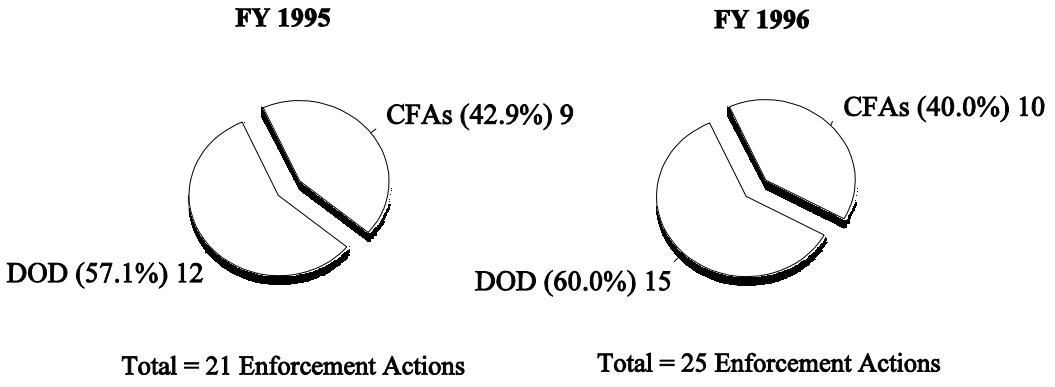
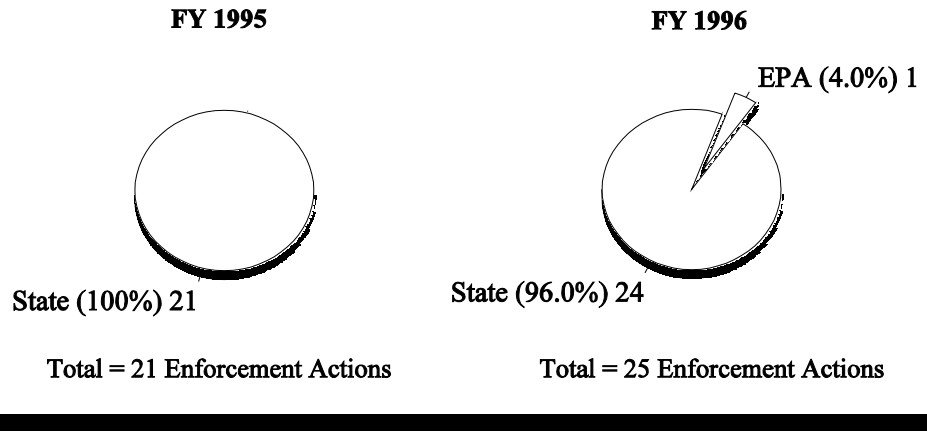



Exhibit III - 30 shows that during FY 1995 and FY 1996, states typically played a lead role on most enforcement actions, particularly during FY 1995, where the states led all enforcement actions of that year.

**Exhibit III - 30**

**CAA Enforcement Leads at Federal Sources**



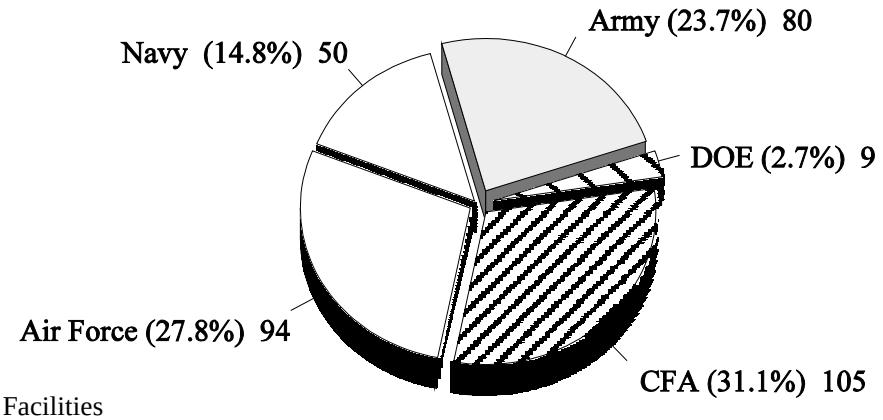
## Asbestos Abatement at Federal Facilities

Due to the significant potential health hazards posed by asbestos abatement activities (i.e., removal, encapsulation), as well as the ubiquitous nature of asbestos in buildings constructed during the first half of this century, the asbestos NESHAP program has particular relevance for federal facility compliance. Under the program, facilities reporting planned asbestos abatement activities may be subject to inspections to ensure the use of proper equipment and procedures.

During the period from the first quarter of FY 1995 to the fourth quarter of FY 1996, 338 federal facilities provided 1,301 notifications of planned asbestos abatement activities. Exhibit III - 31 shows the distribution of reporting facilities according to agency. Collectively, DOD facilities outnumber all other reporting facilities by more than a two-to-one margin, with Air Force installations comprising the largest share among DOD facilities.

**Exhibit III - 31**

**Federal Facilities Reporting Under Asbestos NESHAP**




Total = 338 Facilities

Based on these notifications, EPA and the states conducted 278 inspections, with the vast majority (93.5 percent) being led by state authorities. The level of inspection activity increased only slightly (4.4 percent), from 136 inspections in FY 1995 to 142 in FY 1996. Exhibit III - 32 shows the number of inspections, violations, and follow-up enforcement actions for each year.

## Exhibit III - 32

### Federal Facility Asbestos NESHAP Program Data

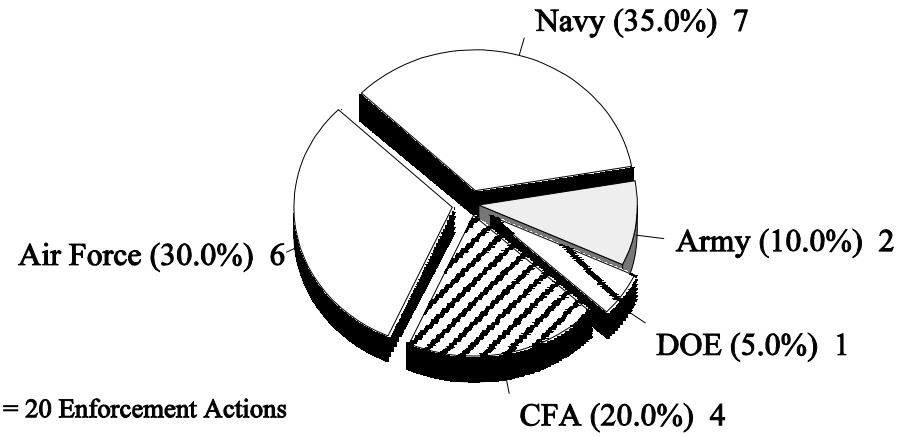
| Year | Inspections | Violations | | Enforcement Actions | | |
|---|---|---|---|---|---|---|
| | | Substantive | Notification | Warning | NOV | Order |
| FY 1995 | 136 | 5 | 10 | 1 | 13 | 0 |
| FY 1996 | 142 | 4 | 9 | 0 | 14 | 0 |

**Substantive Violation**, under the asbestos NESHAP program, are defined as a violation of proper abatement practices (e.g., failure to wear protective equipment).

Violations are classified either as substantive violations or notification deficiencies (i.e., minor violations). Approximately two-thirds of violations were notification deficiencies during both FY 1995 and FY 1996. In addition, enforcement actions taken to address these violations were distributed fairly consistently in FY 1995 and FY 1996. In both years, the number of warnings and NOVs were roughly the same, and there were no administrative orders issued during either fiscal year. Exhibit III - 33 shows how these enforcement actions were distributed according to agency.

## Exhibit III - 33

### 1995-1996 Asbestos NESHAP Enforcement Actions at Federal Facilities



# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| CAA Major Federal Sources by Agency Category | IDEA | 3/26/97 | -- |
| CAA Inspection Leads | IDEA | 3/26/97 | -- |
| CAA Inspections by Agency Category | IDEA | 3/26/97 | -- |
| CAA Compliance Indicator Rates at Federal Sources | IDEA | 4/25/97 | -- |
| CAA Compliance Indicator Rates by Agency Category | IDEA | 4/25/97 | -- |
| CAA Compliance Rates for Major Federal vs Major Non-Federal Sources | IDEA | 4/25/97 | -- |
| CAA Enforcement Actions by Federal Agency Category | IDEA | 3/26/97 | -- |
| CAA Enforcement Leads at Federal Sources | IDEA | 3/26/97 | -- |
| Federal Facilities Reporting Under Asbestos NESHAP | NARS | 7/16/97 | -- |
| Federal Facility Asbestos NESHAP Program Data | NARS | 7/16/97 | -- |
| 1995-1996 Asbestos NESHAP Enforcement Actions at Federal Facilities | NARS | 7/16/97 | -- |

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# SAFE DRINKING WATER ACT

The SDWA is the basis for protecting public drinking water systems from harmful contaminants. Its principle objectives are to:

- ➤ Protect human health and ensure the aesthetic quality of drinking water;
- ➤ Protect underground sources of drinking water; and
- ➤ Establish programs to protect sole-source aquifer and wellhead protection areas.

To reach these objectives EPA established the Public Water System Supervision (PWSS) Program. Under the 1986 Amendments[5], EPA set primary and secondary drinking water standards to protect human health and ensure the aesthetic quality of drinking water. The Underground Injection Control (UIC) Program protects underground sources of drinking water through the establishment of state wellhead and sole source aquifer protection programs. This chapter focuses on federally-owned systems regulated under the PWSS program.

States are primarily responsible for enforcing the public water regulations, called "primacy states," provided they adopt regulations at least as stringent as the national requirements, develop adequate procedures for enforcement, maintain records, and create a plan for providing safe drinking water under emergency conditions. In addition, if the state permits variances and exemptions, they must grant them in accordance with the SDWA.

## Applicability of SDWA to Federal Facilities

Federal facilities have ample compliance responsibilities under the Act. SDWA §1447 requires compliance with all federal, state, and local requirements and administrative authorities to the same extent as any nongovernmental entity. Federal facilities supplying water that are subject to primary drinking water regulations or to underground injection control standards are required to conduct certain activities, including establishing and maintaining records, making reports, and conducting monitoring activities. In addition, they must provide

According to the SDWA, a **Public Water System (PWS)** provides piped water for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. A **Community Water System (CWS)** is a PWS that provides water to the same population year-round.

[5] 1996 Amendments have since been implemented; for more information, contact the SDWA Hotline at 800-426-4791 or on the Internet at http://www.epa.gov.ogwdw/.

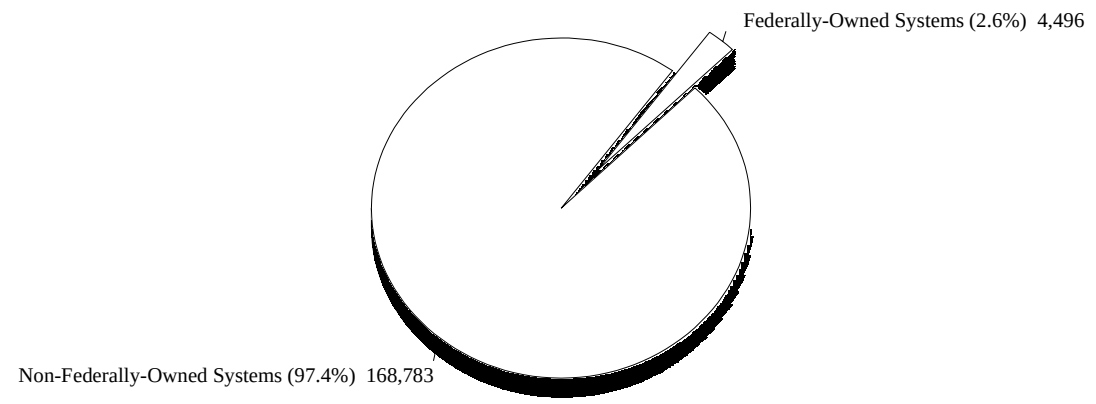
information required by EPA to assist in establishing regulations, determining whether the facilities are complying with SDWA, evaluating the health risks of unregulated contaminants, and advising the public of such risks. Any person may commence a civil action against a federal facility that is alleged to be in violation of any SDWA requirement.

## PWSS Program Universe

As shown in Exhibit III - 34, in FY 1996, federally-owned systems comprised approximately 2.6 percent (4,496) of the total universe of 173,279 systems regulated under the PWSS program.

**Exhibit III - 34**

**Universe of Federally-Owned Public Water Systems (FY 1996)**



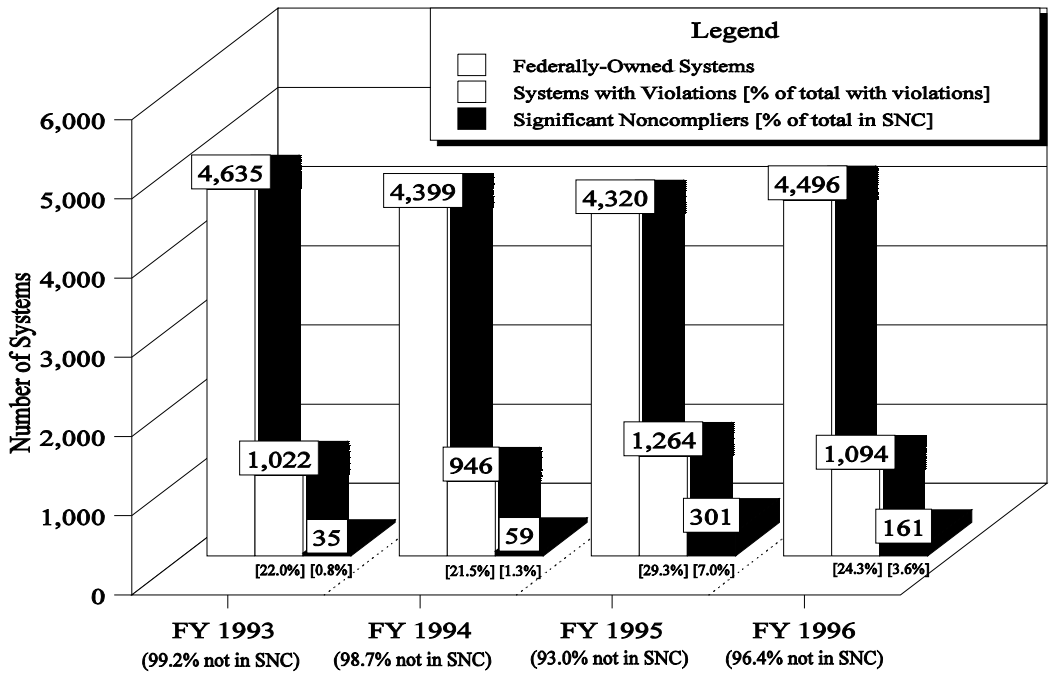

## SDWA Compliance Indicator

Exhibit III - 35 shows by FY the number of systems with violations and the number considered significant noncompliers (SNC). The number of federally-owned systems cited for violations increased from 1,022 in FY 1993 to 1,094 in FY 1996. Moreover, because the number of federal systems actually declined, the percentage of systems with violations increased from 22.0 percent in FY 1993 to 24.3 percent in FY 1996. Systems in SNC increased from 0.8 percent in FY 1993 to 3.6 percent in FY 1996. The compliance indicator used for the SDWA is the percentage of PWSS systems not in SNC. Therefore, as shown below, the corresponding percentages for systems not in SNC for FY 1995 and FY 1996 were 93.0 percent and 96.4 percent, respectively.

A **Significant Noncomplier (SNC)** is defined as a PWS that is found to have more serious, frequent, or persistent violations.

**Exhibit III - 35**

**PWSS Program Compliance at Federally-Owned Systems**



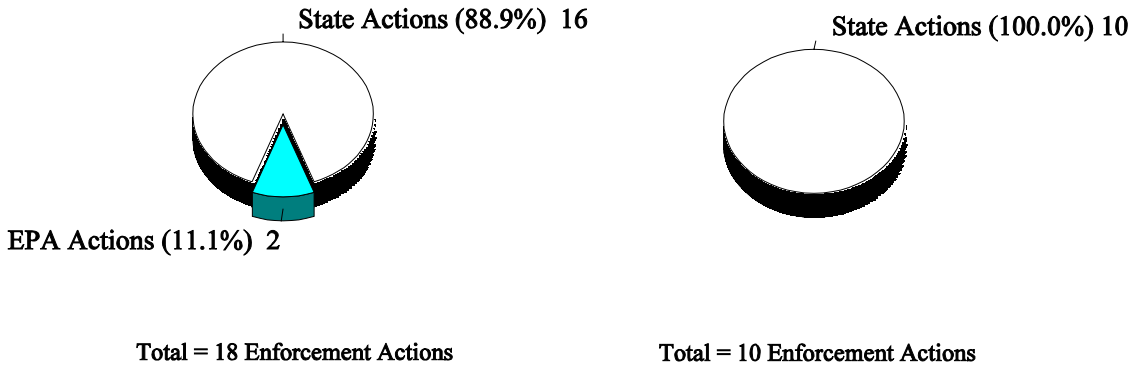

## PWSS Program Enforcement

Few federally-owned systems received formal enforcement actions for violations under the PWSS program, either from EPA or the states. EPA formal actions include Administrative Orders and §1431 Emergency Orders, while state formal actions include Administrative Orders, Bilateral Compliance Agreements, Civil Referrals, and Criminal Cases filed.

Exhibit III - 36 shows that the total number of federal systems receiving formal enforcement actions decreased from 18 in FY 1995 to ten in FY 1996. For the two year period, the share of enforcement actions taken was dominated by states (88.9 percent in FY 1995 and 100 percent in FY 1996) which is reflective of the large number of primacy states. Of the 16 formal enforcement actions issued by states in FY 1995, 10 were Bilateral Compliance Agreements and six were Administrative Orders, while all EPA formal enforcement actions were Administrative Orders. In FY 1996, the 10 formal enforcement actions issued were split evenly between Bilateral Compliance Agreements and Administrative Orders. No federally-owned systems received Civil Referrals or had Criminal Cases filed against them during either year.

**Exhibit III - 36**

**PWSS Enforcement at Federally-Owned Systems**



# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| Universe of Federally-Owned Public Water Systems | SDWIS | 03/16/97 | -- |
| PWSS Program Compliance at Federally-Owned Systems | SDWIS | 03/16/97 | -- |
| PWSS Enforcement at Federally-Owned Systems | SDWIS | 03/16/97 | -- |

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# TOXIC SUBSTANCES CONTROL ACT & FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

The purpose of TSCA is to protect human health and the environment by requiring that specific chemicals be tested and that their processing and use be controlled or restricted as appropriate. To achieve this objective, TSCA authorizes EPA to:

- Gather certain kinds of basic information on chemical risks from entities that manufacture or process chemicals;
- Require companies to test selected existing chemicals for toxic effects;
- Review most new chemicals before they are allowed to be manufactured and distributed; and
- Prevent unreasonable risks by selecting control actions ranging from warning labels to outright bans on the manufacture or use of certain chemicals.

The control actions that may be taken by EPA under TSCA cover the manufacture, processing, use, distribution in commerce, and disposal of chemical substances and mixtures.

FIFRA provides EPA with the authority to oversee the registration and use of pesticides and other similar products intended to kill or control insects, rodents, weeds, and other living organisms. FIFRA enables EPA to achieve the following goals:

- Evaluate the risks posed by pesticides through a registration system;
- Classify and certify pesticides for specific uses and thus control exposure;
- Set standards for the certification of pesticide applicators;
- Suspend, cancel, or restrict pesticides that pose threats to the environment; and
- Enforce requirements through inspections, labeling notices, and regulation by state authorities.

Under FIFRA, a manufacturer wishing to make a new pesticide must register it with EPA and submit extensive test data, information on proposed uses, and suggested labeling in support of the application for registration. In addition, the statute enables EPA to ban, control, or otherwise restrict the manufacture, use, import, or disposal of a pesticide.

## Applicability of TSCA and FIFRA to Federal Facilities

Unlike many other federal environmental statutes, TSCA and FIFRA do not specifically address federal facility responsibilities. However, there are many provisions under TSCA that affect federal facilities, including: testing, reporting and information retention requirements, abatement surveys, and managing materials regulated under TSCA. Under both TSCA and FIFRA, federal facilities are subject to inspections and, if appropriate, enforcement actions.

## TSCA and FIFRA Universe

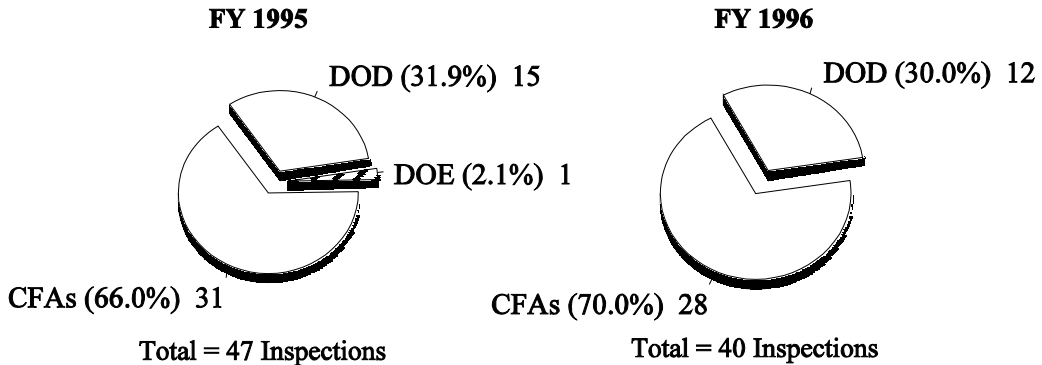
TSCA and FIFRA are not permit-based compliance programs like RCRA, nor do they involve formal listing procedures whereby facilities meeting certain criteria are identified and tracked until they no longer meet these criteria (e.g., CERCLA). In addition, the number and identity of facilities subject to TSCA or FIFRA may change substantially from year to year. As a result, there are no readily definable TSCA or FIFRA universes. Federal facilities subject to TSCA or FIFRA are identified and targeted for inspections through a variety of less formal means, including: self-reporting by entities of their intent to manufacture regulated substances, third-party requests/complaints, and EPA/state evaluation of publicly available data.

## TSCA and FIFRA Inspections

The number of TSCA inspections conducted at federal facilities decreased by nearly 15 percent from FY 1995 to FY 1996 (47 to 40). As shown in Exhibit III - 37, the distribution of inspections according to agencies changed slightly over the same period. DOD's share of TSCA inspections declined slightly whereas the level of inspection activity at CFA facilities showed a modest increase.

**Exhibit III - 37**

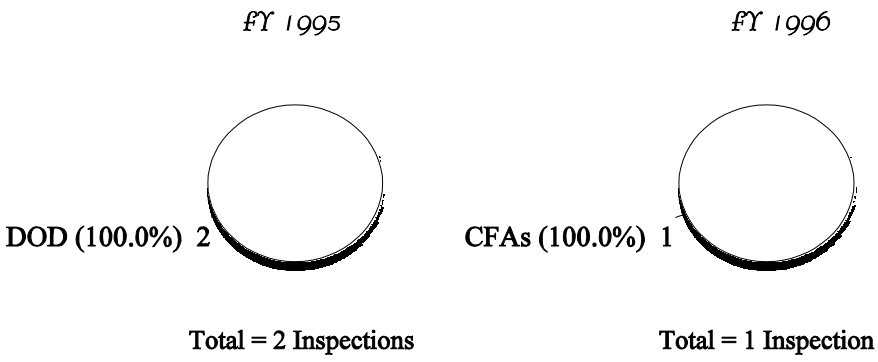
**TSCA Inspections by Federal Agency Category**



As shown in Exhibit III - 38, the number of FIFRA inspections conducted at federal facilities was relatively small; two inspections occurred during FY 1995, while only one occurred during FY 1996. In FY 1995, all inspected facilities were DOD, while the lone inspection conducted during FY 1996 occurred at a CFA facility.

**Exhibit III - 38**

**FIFRA Inspections by Federal Agency Category**




## TSCA and FIFRA Compliance

EPA did not find any federal facilities to be in SNC with either TSCA or FIFRA during FY 1995 or FY 1996. In other words, there were no violations of TSCA or FIFRA at federal facilities that triggered an enforcement response at an administrative complaint level. Therefore the compliance indicator, defined as the percentage of inspected federal facilities not in SNC, is 100 percent for FY 1995 and FY 1996.

# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| TSCA Inspections by Federal Agency Category | IDEA | 04/15/97 | -- |
| FIFRA Inspections by Federal Agency Category | IDEA | 04/15/97 | -- |

# TOXICS RELEASE INVENTORY

The Toxics Release Inventory (TRI), established under the Emergency Planning and Community Right-to-Know Act of 1986, is a publicly available data base containing specific chemical release and transfer information from manufacturing facilities throughout the United States. The TRI is intended to promote planning for chemical emergencies and to provide information to the public regarding the presence and release of toxic and hazardous chemicals in their communities. In addition, following the passage of the Pollution Prevention Act in 1990, the TRI was expanded to include reporting of additional waste management and pollution prevention activities.

In the private sector, manufacturing facilities (i.e., facilities in Standard Industrial Classification codes 20 - 39) having ten or more full-time employees and exceeding certain chemical use thresholds are required to report under the TRI. The threshold for manufacturing and processing of listed chemicals is 25,000 pounds per year for each chemical, and 10,000 pounds per year for each listed chemical for other uses.

Reports for each calendar year are submitted to EPA by July 1 of the following year. After completing data entry and quality assurance activities, EPA makes the data available to the public in a printed report, in a computerized data base, and through a variety of other information products (e.g., CD-ROM). These products are usually released during the early spring of the year following the submission of data; thus, the information contained in this report, which is derived from data released in May of 1997, presents TRI reporting activity for calendar year 1995.

## Applicability of TRI to Federal Facilities

In August of 1993, President Clinton signed Executive Order 12856, which required Federal facilities to begin submitting TRI reports for calendar year

Under the TRI program, a **Release** is an on-site discharge (excluding off-site transfers) of a toxic chemical to the environment, including emissions to air, discharges to bodies of water, releases at the facility to land, and contained disposal into underground injection wells.

**Releases to water** include discharges to bodies of water from contained sources (e.g., pipes) and runoff.

**Releases to land** occur within the boundaries of the reporting facility and include disposal of toxic chemicals in waste to a landfill, land treatment area, surface impoundment, waste pile, or other land disposal (e.g., leaks).

**Fugitive Air Sources** are non-point emissions or releases that are not in a confined directional flow (e.g., releases from equipment, evaporative losses from surface impoundments and spills; and releases from building ventilation systems). In contrast, **Stack Air Sources** are point air emissions or releases that are in a confined air stream, particularly releases through stacks, vents, ducts, pipes, lab hoods, or other confined air streams.

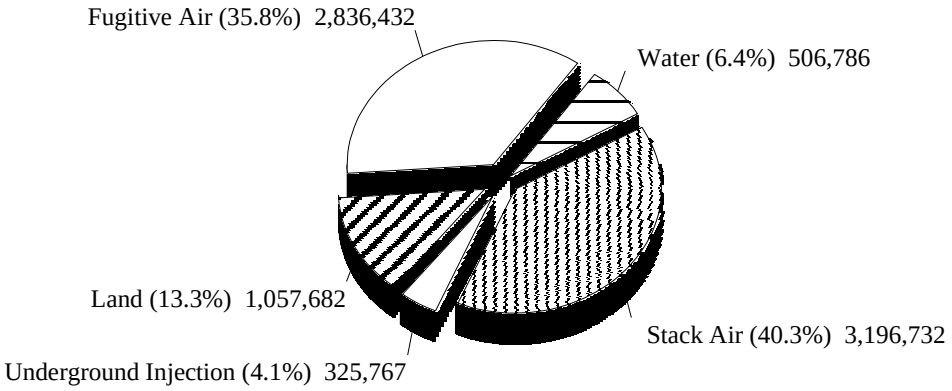
1994 activities.[6] Unlike private sector facilities, however, Federal facilities meeting the TRI chemical thresholds are required to file TRI reports, whether or not they are engaged in manufacturing. Prior to 1994, only government-owned contractor-operated (GOCO) facilities were required to submit TRI reports. These same facilities would continue to submit after 1994, assuming they met TRI thresholds, although they would be identified as Federal facilities, not GOCOs. It should be noted, however, because the universe of reporting Federal facilities has changed, comparisons of pre- and post-1994 data may not be entirely valid.

## TRI Releases at Reporting Federal Facilities

Federal facilities reported releases of approximately 7.9 million pounds of TRI chemicals in 1995, most of which (76.1 percent) consisted of releases to the air. Releases to air from stack air emissions exceeded fugitive sources by nearly six percent. Exhibit III - 39 presents the distribution of releases according to various environmental media. Of the releases to environmental media other than air, the majority were accounted for by releases to land, followed by releases to water and releases to underground injection wells.

**Exhibit III - 39**

**TRI Releases by Environmental Media at Federal Facilities in pounds (1995)**




Total = 7,923,399 pounds

## Off-Site Transfers at Reporting Federal Facilities

In 1995, Federal facilities transferred more than 6.3 million pounds of TRI chemicals to off-site locations for the purposes of recycling, energy recovery, treatment, or disposal. Exhibit III - 40 presents these off-site transfers according to waste management activity.

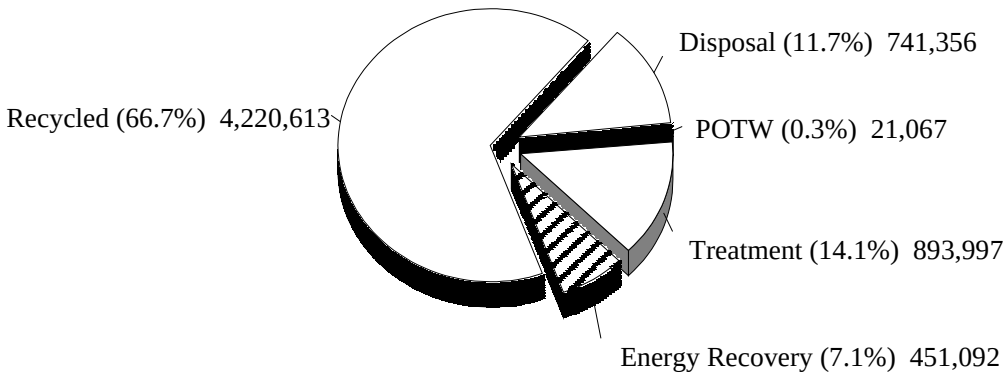
[6] TRI data are submitted on a calender year rather than a fiscal year basis.

Off-site transfers for recycling were the most common at Federal facilities in 1995 (66.7 percent), followed by treatment (14.1 percent), disposal, and energy recovery (11.7 and 7.1 percent, respectively). Transfers of wastewater for treatment was fairly uncommon at Federal facilities -- transfers to POTWs comprised less than 0.5 percent of the total in 1995.

**Off-Site Transfers** include transfers of toxic chemicals in wastes (e.g., for recycling, energy recovery, treatment, or disposal) to a facility that is geographically or physically separate from the facility reporting under the TRI.

**Exhibit III - 40**

**TRI Off-Site Transfers at Federal Facilities in pounds (1995)**




Total = 6,328,125 pounds

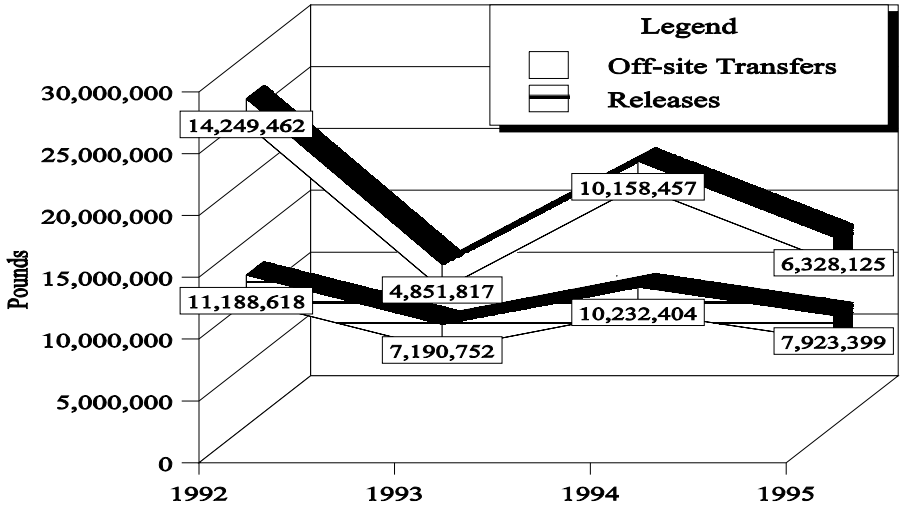
## Trend Analysis of TRI Data

As noted earlier, the universe of Federal facilities required to report TRI releases broadened in 1994 after the issuance of E.O. 12856. Therefore, it is not entirely valid to compare pre- and post-1994 release and transfer data. With this in mind, Exhibit III - 41 shows that TRI off-site transfers in the FY 92-93 timeframe decreased from 14.3 million pounds to 4.8 million pounds with 57 GOCO facilities reporting, then decreased from 10.2 million pounds to 6.3 million pounds with 142 Federal/GOCO facilities reporting.

TRI releases decreased from 11.2 million pounds to 7.2 million pounds in the FY 92-93 timeframe, then decreased from 10.2 million pounds to 7.9 million pounds in the FY 94-95 timeframe.

**Exhibit III - 41**

**TRI Releases and Off-site Transfers at Federal Facilities (1992 -1995)**




## EPCRA §313 Inspections

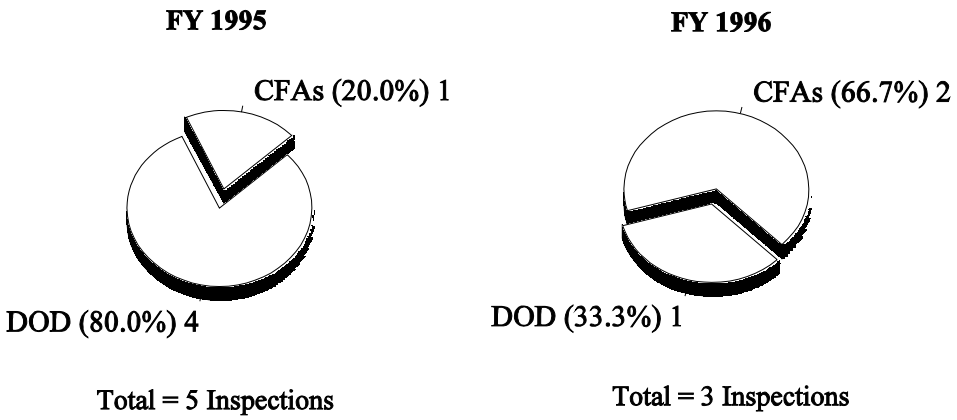
In addition to the standard reporting requirements of the EPCRA TRI program (EPCRA §313), EPA conducts a limited number of inspections at reporting Federal facilities. Given the nature of the program, inspections conducted under EPCRA §313 tend to involve reviews, although the process of verifying the accuracy of TRI reporting may involve some on-site field evaluations. Exhibit III - 42 shows the number of EPCRA §313 inspections conducted at Federal facilities during FY 1995 and FY 1996. Per §5-502 of E.O. 12856, EPA Regions acted as the lead on all inspections during this period.

## EPCRA §313 Enforcement Actions

Per §5-502 of E.O. 12856**,** Federal agencies are not subject to the enforcement provisions of §325 and §326 of EPCRA.

**Exhibit III - 42**

**EPCRA §313 Inspections by Federal Agency Category**




## Information Sources

The following is a listing of additional information on TRI/EPCRA that can be obtained at no charge:

- **1995 TRI Public Data Release** (annual report), EPA 745/R-97-005: available through the U.S. EPA EPCRA Hotline (800) 535-3333
- **1995 State Fact Sheets**, EPA 745/F-97-001: available through the U.S. EPA EPCRA Hotline (800) 535-3333
- **TRI Information Kit**, EPA 749/F-94-002: available through NCEPI (800) 490-9198
- **Right to Know Network (RTKNET)**: provides online public access to TRI and related environmental data bases to community groups concerned about toxics. Phone: (202) 797-7200; Internet: http://www.rtk.net
- **U.S. EPA Internet Server**: provides access to a variety of reports, data files, and TRI information from EPA. Phone: (202) 260-1531; Internet: http://www.epa.gov

# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| TRI Releases by Environmental Media at Federal Facilities | TRIS | 03/25/97 | -- |
| TRI Off-Site Transfers at Federal Facilities | TRIS | 03/25/97 | -- |
| TRI Releases and Off-Site Transfers at Federal Facilities | TRIS | 03/25/97 | -- |
| EPCRA §313 Inspections by Federal Agency Category | IDEA | 04/15/97 | -- |

# COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

CERCLA authorizes the federal government to respond to situations involving past disposal of hazardous substances. The primary emphasis of CERCLA is to protect human health and the environment through the cleanup of hazardous waste sites. Under CERCLA, parties causing or contributing to contamination are held responsible for cleaning up contaminated sites.

## Applicability of CERCLA to Federal Facilities

Section 120 of CERCLA states that federal facilities must comply with all applicable provisions of CERCLA to the same extent as a private entity. To promote compliance, CERCLA also contains broad waivers of sovereign immunity to permit individuals and states to sue federal agencies for recovery of their response costs and to bring citizen suits if an agency is not adhering to a CERCLA mandate.

## Federal Agency Hazardous Waste Compliance Docket

Section 120(c) of CERCLA requires EPA to establish a list of federal facilities that report hazardous waste activity under RCRA or §103 of CERCLA. The list, known as the Federal Agency Hazardous Waste Compliance Docket, is a key component in identifying potentially contaminated sites at federal facilities. The docket represents a regularly updated inventory of facilities that may be subject to more advanced stages of the CERCLA cleanup process. All facilities on the docket will at least receive a Preliminary Assessment (see Site Screening and Assessment) to determine if there is a need for further action.

A facility is removed from the docket when:

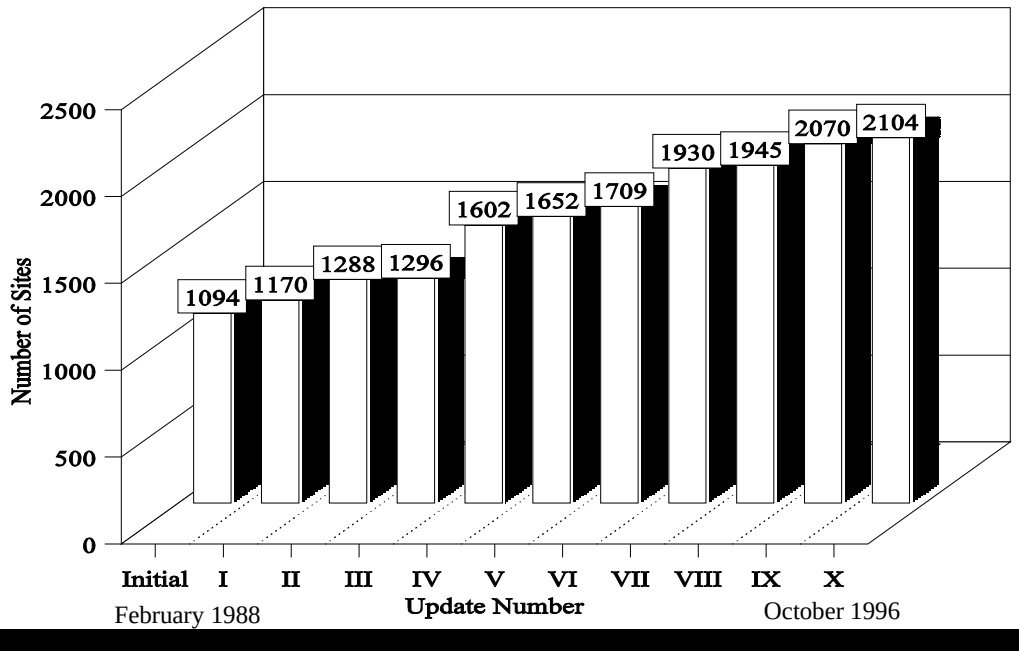
- ➤ The facility is a small quantity generator;
- ➤ The facility is not federally-owned or -operated; or
- ➤ It is listed more than once (only redundant listings are removed).

In addition, a facility that has been removed from the docket can be relisted at any time if its status changes.

Exhibits III - 43 through III - 45 illustrate the number of sites at federal facilities listed on the docket and the agencies that own and manage these facilities. As shown in Exhibit III - 43, from its inception in February of 1988 to the most recent update in October of 1996, the number of sites at federal facilities listed on the docket has nearly doubled, from 1,094 to 2,104.

**Exhibit III - 43**

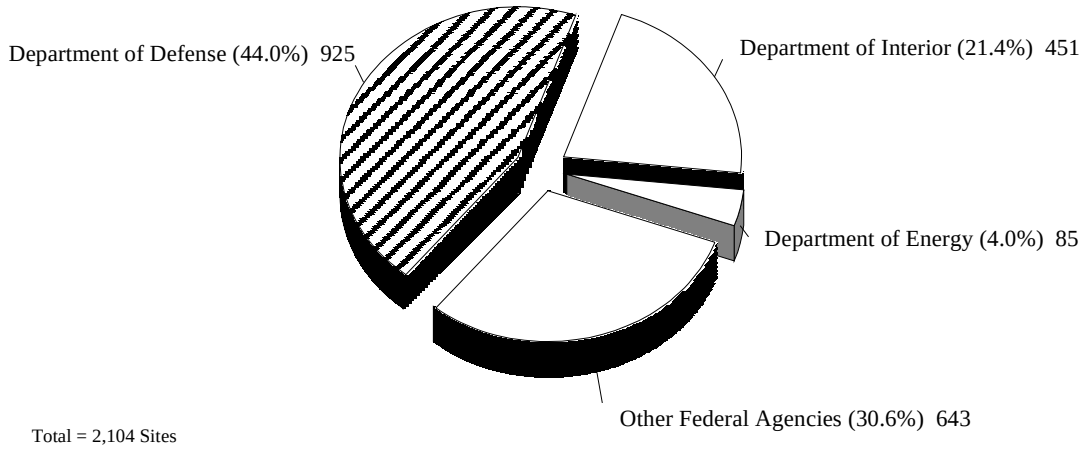
**Total Number of Federal Facility Sites Listed on the Docket**




As shown in Exhibit III - 44, the 925 DOD sites comprise the largest single share (44.0 percent) of sites on the docket. Other agencies with substantial numbers of sites include the Department of the Interior (DOI -- 451 sites or 21.4 percent) and DOE (85 sites or 4.0 percent). Together, DOI sites combined with all other CFA sites comprise over half (52.0 percent) of sites listed on the docket.

**Exhibit III - 44**

**Federal Facility Sites Listed on the Docket by Agency**

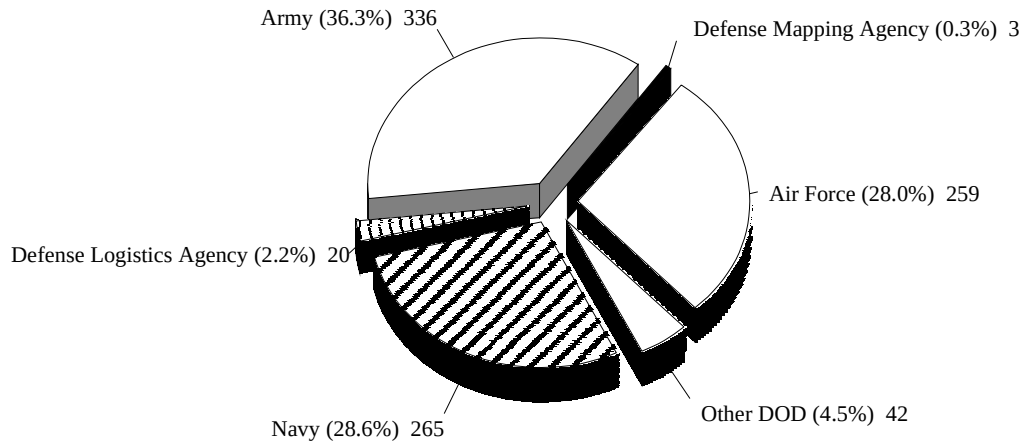



Total = 2,104 Sites

As shown in Exhibit III - 45, the Navy, Army, and Air Force owned or managed similar shares (between 28 and 36 percent) of the total number of DOD sites presently listed on the docket.

**Exhibit III - 45**

**DOD Sites on the Docket by Agency**




Total = 925 DOD Sites

## Site Screening and Assessment

The first phase of assessment involves identifying, evaluating, and ranking hazardous waste sites. There are at least three steps in this phase: Preliminary Assessment (PA), Site Inspection (SI), and Expanded Site Inspection (ESI).

The PA is the first step an agency takes in the site screening and assessment phase. It involves a review of all available reports and documentation about the site and a site visit. At the conclusion of a PA, a projected numerical rating of potential hazards is developed which serves as a way to screen out sites early in the process. These are sites where no further action is planned (NFRAP). The PA also provides data for subsequent priority-setting. Sites considered to present an immediate danger to human health and the environment or that can be quickly remediated may be referred for Removal Action. The remaining sites move on to the SI stage in the site assessment process.

The SI is designed to collect more extensive information by conducting a site visit and collecting samples to further define and characterize the problems at a site. Sites are scored using the Hazard Ranking System (HRS). The HRS enables EPA to assess the risk posed by sites in the CERCLIS data base, and to determine which sites should be listed on the National Priorities List (NPL). Sites receiving a score of 28.5 or above are listed on the NPL. ESIs are sometimes required to provide additional data to support scoring of a site and to provide additional data to support an anticipated Remedial Investigation.

A **Site** is a specific location at a federal facility from which a release of hazardous substances has occurred. A facility may encompass one site or multiple sites.

EPA uses the **Hazard Ranking System** to evaluate and rank the relative potential of hazardous substance releases to cause health or safety problems, or ecological or environmental damage.

The **National Priorities List** is EPA's list of the highest priority sites for cleanup. Sites are proposed for the NPL based on their score using the Hazard Ranking System.

## Remedial Action Process

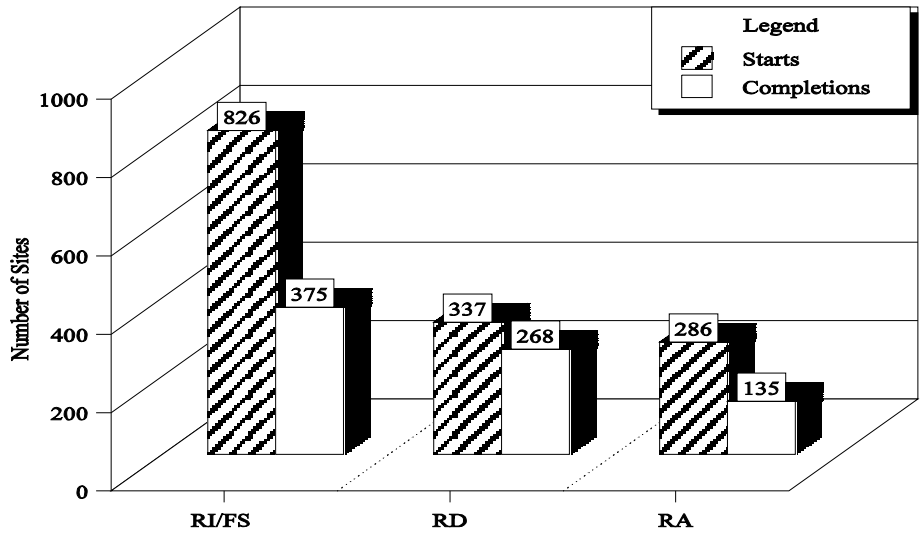
The first phase of the remedial action process is the Remedial Investigation (RI) that defines the nature and extent of problems at a site and provides information needed to develop and evaluate cleanup alternatives. It requires a more detailed and comprehensive analysis than the initial site inspection. The Feasibility Study (FS) assists in this analysis by developing possible alternatives for cleanup and weighing the advantages and disadvantages of each approach. Once the cleanup alternatives are defined, the FS determines their effectiveness by examining each alternative according to specific criteria. A RI/FS may address all or a portion of the sites at a single federal facility.

After all criteria have been examined and options weighed, a proposed approach to conduct cleanup is selected and is summarized in a proposal to the public. The proposed plan summarizes the process leading to the decision including the analysis of alternatives in the FS, the preferred alternative, and the rationale for that preference. The public is then given the opportunity to discuss issues related to the site in a public meeting. Interested parties may also submit oral and written comments during a 30-day public comment period. Once comments have been received and considered, a plan is selected and explained in the Record of Decision (ROD). The ROD describes the remedial action plan for a site, discusses the technical details of the plan, and provides the public with a consolidated source of information about the site.

The last three phases of the remedial action process are: Remedial Design (RD), Remedial Action (RA), and Operation and Maintenance (O&M). The RD stage involves developing technical plans and specifications for the RA phase as outlined in the ROD. When these plans and specifications are completed, the construction or RA phase begins. The O&M phase begins when the RA phase is complete and the plan is operational and functional. O&M activities are defined as those activities required for maintaining the effectiveness of the plan and/or monitoring site conditions to determine the occurrence of a new or recurring environmental threat. Monitoring air and ground water, inspecting and maintaining treatment equipment, and maintaining security measures (e.g. fencing and signs) are a few examples of O&M activities. Exhibit III - 46 shows the progress of federal facilities through the Remedial Action "pipeline."

**Exhibit III - 46**

**Cumulative Remedial Action Program Accomplishments for Federal Facility Sites (FY 1996)**



As of FY 1996, 826 sites at federal facilities had started the RI/FS phase. Of these, approximately 45 percent (375 of 826) had signed RODs. Nearly 90 percent (337 of 375) of these sites had begun the RD phase. The remaining sites had either exited the pipeline at the completion of the RI/FS phase (i.e., a no-action ROD was signed) or were awaiting commencement of the RD phase. A portion of facilities presently undergoing an RI/FS could exit the pipeline upon completion of their RI/FS.

Of the sites beginning the RD phase, approximately 80 percent (268 of 337) had completed the process. Upon completion of the RD phase, RD sites may be split into multiple RA sites. For this reason, there are actually more sites that have begun the RA phase than have completed the RD phase. Approximately 47 percent (135 of 286) of sites entering the RA phase had completed the process. In all, therefore, roughly 16 percent (135 of 826) of sites at federal facilities entering the pipeline had progressed through every stage of the remedial action process. It should be noted, however, that a number of sites at federal facilities may not progress through the entire pipeline, because at an interim phase, EPA has determined that they no longer pose a significant threat to human health or the environment.

## Removal Action Process

In contrast to a Remedial Action, which can take months or even years to implement and complete, a CERCLA removal action is an immediate, short term response taken to control direct threats to human health and the environment from a release or threatened release of a hazardous substance. The federal agency with jurisdiction over the site will generally manage removal actions.

There are three types of removals determined by the site screening and assessment and the urgency of the situation:

- ***Emergencies*** -- removals where the release, or threat of release, requires that onsite cleanup activities begin within hours of the lead agency's determination that a removal action is appropriate.

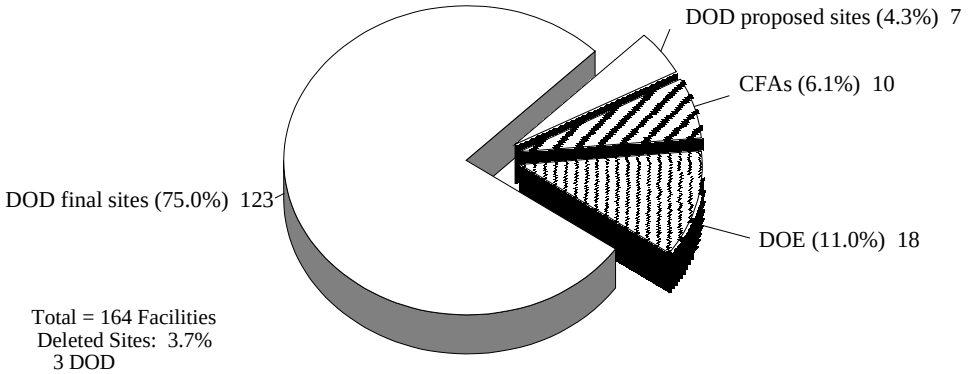
- ***Time-Critical*** -- removals where, based on the site evaluation, the lead agency determines that a removal action is appropriate and there are less than six months available before cleanup activities must begin.

- ***Non-Time Critical*** -- removals where, based on the site evaluation, the lead agency determines that a removal action is appropriate and that there is a planning period of more than six months available before on-site activities must begin. The lead agency must undertake an Engineering Evaluation/Cost Analysis, or its equivalent, for non-time critical removals.

Removal actions may also be used to stabilize and mitigate the worst problems at NPL sites until the Remedial Action program can implement complete cleanups. Since removal actions are managed by federal agencies with responsibility for the site, EPA does not track removal actions at federal facilities in the CERCLIS data base. Exhibit III - 47 presents the status of sites on the NPL as of FY 1996.

**Exhibit III - 47**

**Federal Facilities on the NPL (FY 1996)**




Of the 164 federal facility NPL sites, 130 or 79.3 percent are at DOD facilities. DOE sites make up 11.0 percent and all other federal agencies comprise 6.1 percent of the total. Facilities deleted from the NPL comprise an additional 3.6 percent.

## CERCLA Enforcement

At the start of EPA's federal facilities enforcement program, EPA directed its resources largely to the completion of negotiations for CERCLA §120 interagency agreements/federal facility agreements (IAGs/FFAs). These agreements made up the cornerstone of the enforcement program addressing the 151 final and seven proposed

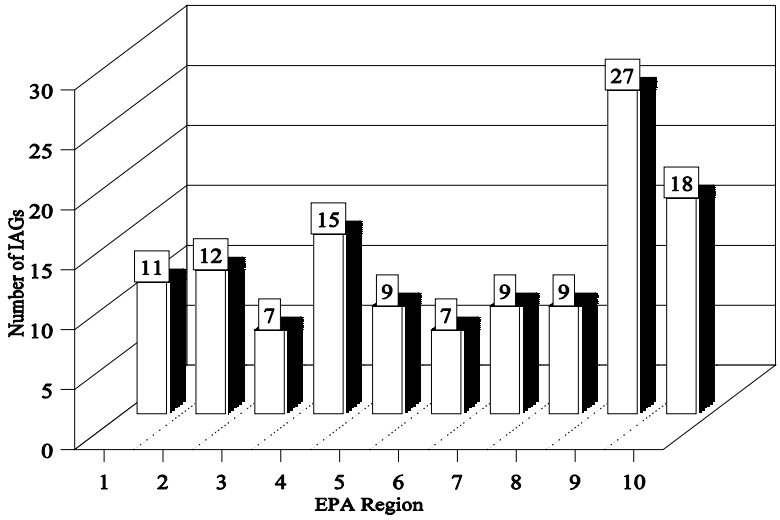
**IAGs/FFAs** are binding cleanup agreements between EPA, federal agencies, and, in most cases, states. IAGs/FFAs define roles, responsibilities, and milestones, and provide opportunities for public involvement.

federal facilities listed on the NPL at the end of FY 1996. Each agreement contained specific schedules for the study and cleanup of hazardous substances at these facilities.

There were three federal facility CERCLA IAGs/FFAs executed in FY 1995 and two in FY 1996. Of the federal sites listed on the NPL at the end of FY 1996, 134 are now covered by 125 IAGs.[7] Exhibit III - 48 shows the number of IAGs signed by Region from FY 1987 to FY 1996.

**Exhibit III - 48**

**Final CERCLA IAGs/FFAs Signed by EPA Region FY 1987-96**




## Information Sources

Additional information on CERCLA and Superfund can be obtained from the following sources:

- EPA's Superfund Home Page: **http//www.epa.gov/superfund/**
- Superfund Hotline: obtain answers to questions concerning CERCLA as well as up-to date information and copies of regulations **(800) 424-9346** or **(703) 412-9810**

[7] An IAG may cover activities at more than one site and be signed by more than one agency.

- Superfund Docket: responds to requests for access to docket files and provides copies of Superfund program publications **(703) 603-9232**

# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| Total Number of Federal Facility Sites Listed on the Docket | Docket | 10/24/96 | -- |
| Federal Facility Sites Listed on the Docket by Agency | Docket | 10/24/96 | -- |
| DOD Sites on the Docket by Agency | Docket | 10/24/96 | -- |
| Cumulative Remedial Action Program Accomplishments for Federal Facility Sites | CERCLIS | 10/24/96 | -- |
| Federal Facilities on the NPL | CERCLIS | 10/24/96 | -- |
| Final CERCLA IAGs/FFAs Signed by EPA Region | CERCLIS | 10/24/96 | -- |

# BASE REALIGNMENT AND CLOSURE ACT

The Base Realignment and Closure Acts of 1988 and 1990 provide for the realignment or complete closure of military installations based on revised force structure needs. The Acts stipulate that bases be chosen for closure or realignment in 1988 (BRAC I), 1991 (BRAC II), 1993 (BRAC III), and 1995 (BRAC IV).

Installations recommended by DOD for closure or realignment are submitted to the Defense Base Closure and Realignment Commission that reviews the list to ensure that DOD did not substantially deviate from the selection criteria (i.e., military value, economic, and environmental considerations). The Commission could recommend changes for those installations where a substantial deviation was established. The Commission's list is subject to Presidential approval and Congressional action. If the President approves the Commission's recommendations, the list is forwarded to Congress for its consideration. Congress must either pass a joint resolution blocking the entire list or the entire list becomes law. Congress has 45 legislative days to act.

**Base Closure** is an action taken at a military installation to terminate active or reserve military activity and transfer the installation's real property to another authority (i.e., national guard, other federal agency, state, or commercial entity).

**Base Realignment** is any action taken at a military installation that both reduces and relocates functions and civilian personnel positions, but does not include a reduction in force resulting from workload adjustments, reduced personnel or funding levels, or skill imbalances.

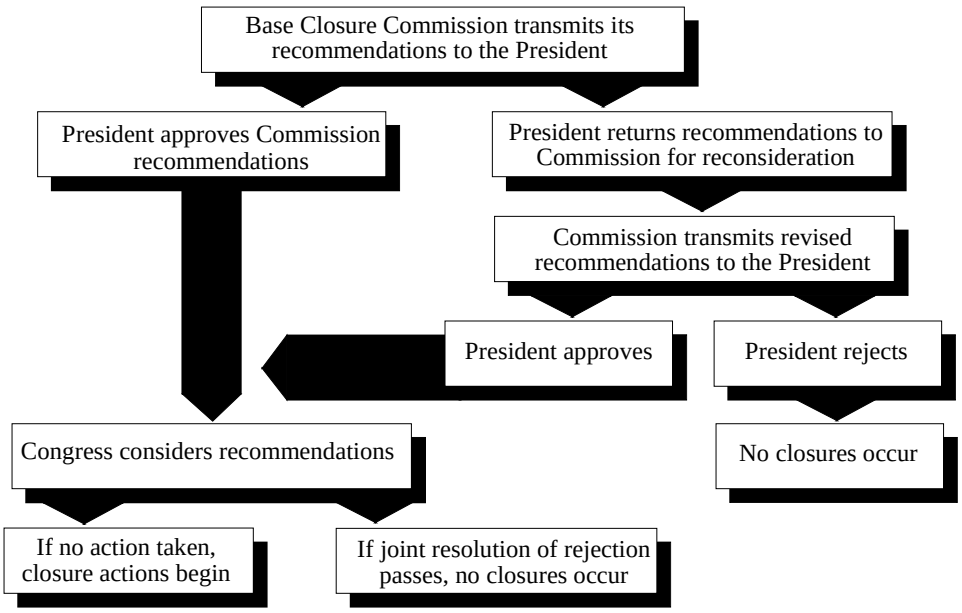
In terms of implementation, the Legislation requires DOD to begin all realignments and closures within two years of the date the President transmitted his approval to Congress and to complete them no later than six years after the same date. Exhibit III - 49 provides an overview of the BRAC selection process.

In an effort to facilitate base closure and reuse, CERCLA Section 120 was amended by the Community Environmental Response Facilitation Act (CERFA) in 1992. CERFA requires that DOD identify "uncontaminated parcels." For BRAC IV bases on the NPL, the identification by DOD and concurrence by EPA was completed in March 1997.

Under CERCLA Section 120(h)(4), "uncontaminated" parcels are those on which no hazardous substances and no petroleum products or their derivatives were known to have been released, or disposed of. EPA issued revised guidance on the implementation of CERCLA Section 120(h)(4) on March 27, 1997. The guidance allows, in certain cases, for parcels to be identified as uncontaminated although some limited quantity of hazardous substances or petroleum products has been released or disposed of, if there is no indication that the activity associated with the release or disposal has resulted in a threat to human health or the environment.

## Exhibit III - 49

## BRAC Selection Process




Parcels with potential for reuse are identified as early in the process as possible and given priority in the cleanup process as appropriate. DOD is required to apply the National Environmental Policy Act (NEPA) during the process of property disposal and reuse. Under NEPA, DOD must define the environmental impact of the proposed reuse, document any unavoidable adverse effects, and identify alternatives to the proposed action.

For parcels requiring remediation, CERFA clarifies CERCLA Section 120(h)(3) to allow transfer by deed once a remediation action has been completely constructed and installed, but before the cleanup objectives have been met, provided that the federal agency can demonstrate to EPA that the action is "operating properly and successfully". Since the effects of closing these federal facilities often extend well beyond the federal sector, impacting local and regional economies and livelihoods, the transfer of base closure property to communities and businesses in advance of cleanup completion allows for early access to the property and speeds the economic redevelopment process.

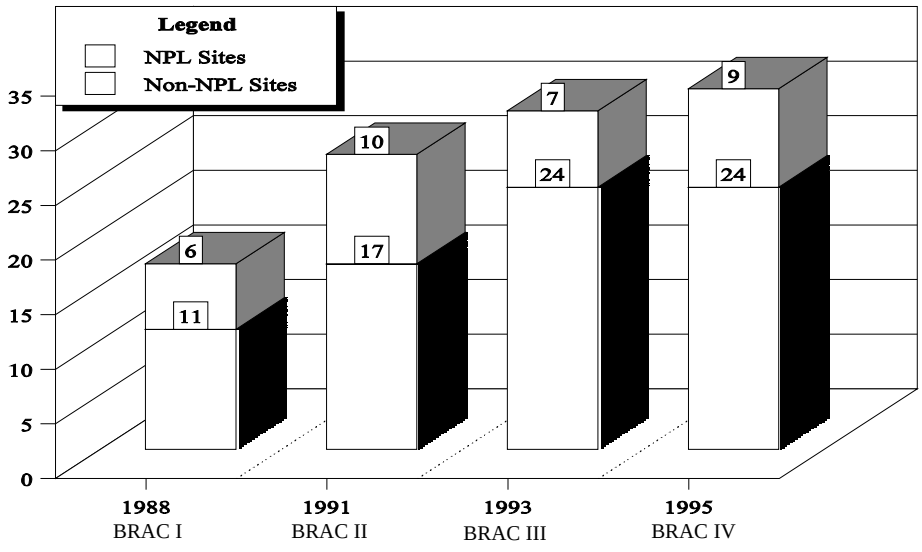
A plan to mitigate economic dislocation and speed economic recovery of communities near BRAC installations was announced by the Clinton Administration in July of 1993. Rapid redevelopment and job creation are the top goals of this community reinvestment program, commonly referred to as the Five Point Plan.

The Fast Track Cleanup Program at installations with environmental contamination and where property will be available for transfer to the community is an essential component of the President's Five Point Plan. EPA, DOD, and the states are charged with creating a working partnership to implement the Fast Track Cleanup Program with the objectives of quickly identifying clean parcels for early reuse, selecting for appropriate leasing parcels where cleanup is underway, and hastening cleanup.

The number of Fast Track Cleanup locations is a subset of the total number of bases selected for closure or realignment. Fast Track Cleanup locations are identified by DOD as locations where there is environmental contamination and where property will be available for transfer to the community. During FY 1997, 108 locations were part of the Fast Track Cleanup Program; 17 are BRAC I, 27 are BRAC II, 31 are BRAC III, and 33 are BRAC IV. Of these locations, 32 are Superfund NPL sites, and their breakup according to BRAC round is presented in Exhibit III - 50.

**Exhibit III - 50**

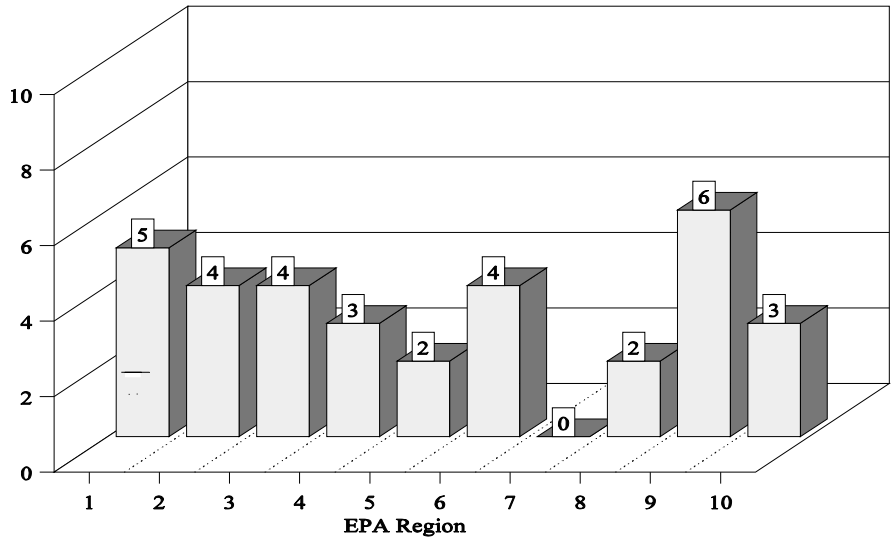
**Number of Fast Track Cleanup Locations**




As shown in Exhibit III - 51, Region 9 contained the greatest number of Fast Track Cleanup locations (6 locations, which represents 18.2 percent) during the BRAC IV round. Region 1 had the second largest number of locations (5 locations, 15.2 percent), followed by Regions 2, 3, and 6 (4 locations and 12.1 percent, each).

**Exhibit III - 51**

**BRAC IV Fast Track Cleanup Locations by EPA Region**

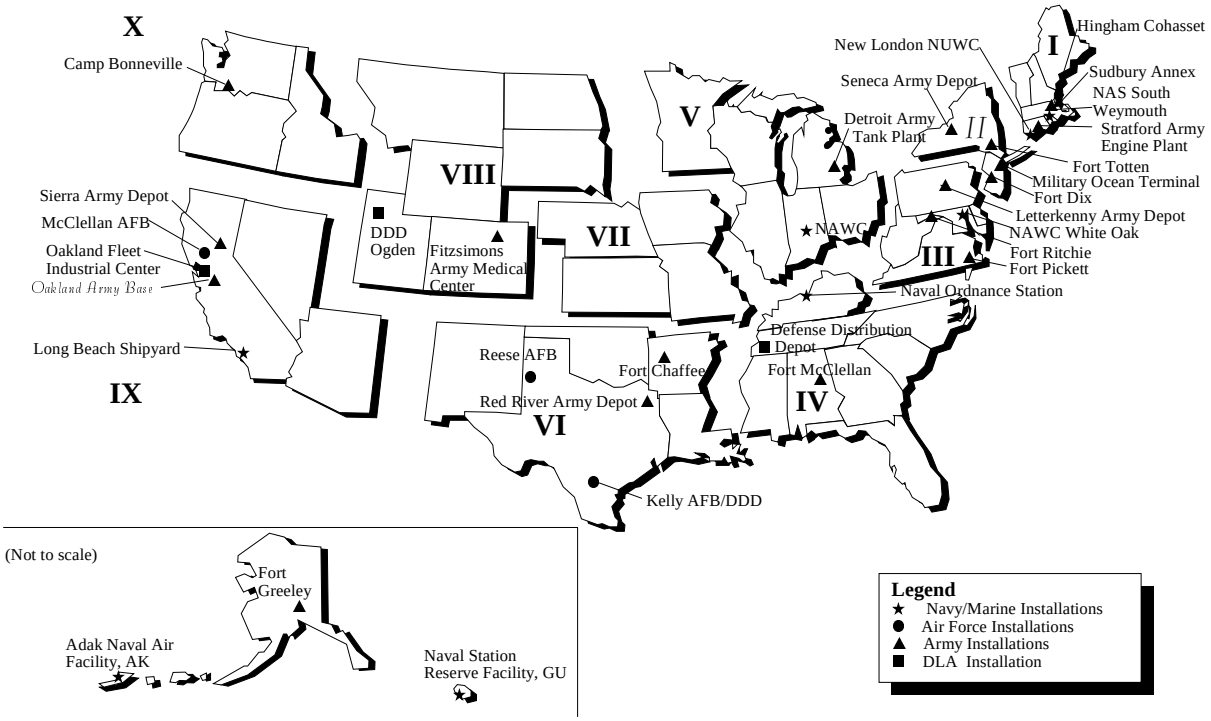



Breaking the traditional model for site cleanup, DOD, EPA and state regulators have forged BRAC Cleanup Teams (BCTs) to deal with the complex environmental problems at Fast Track Cleanup installations. BCTs are in place at all active Fast Track Cleanup installations and work to expedite cleanup efforts and integrate them with potential reuse options. The BCTs are empowered to make decisions locally to the maximum extent possible and have the ability to raise issues immediately to senior level officials for resolution should the need arise. Exhibit III - 52 presents the location of round IV BCTs throughout the country.

As part of this new approach, EPA and state regulators bring a cadre of technical and legal experts to support the BCTs. For example, EPA provides in-house technical expertise in the areas of hydrogeology, health risk assessment and toxicology, ecological risk assessment, engineering, environmental legal expertise, community relations, field work support (sampling and site assessment), and uncontaminated parcel identification. This leads to real-time decision making, reduction in documents and identification of innovative ways to accomplish faster cleanup.

## Exhibit III - 52

## BRAC IV Cleanup Teams by State




EPA works with other members of the BCT in the following general areas:

- ➤ Accelerating the identification of uncontaminated parcels under CERFA;
- ➤ Promoting community involvement in restoration and reuse decision making;
- ➤ Completing site assessment and characterization processes and procedures;
- ➤ Supporting up-front planning and scoping;
- ➤ Preparing and reviewing documents;

- ➤ Reviewing the Remedial Investigation/Feasibility Study, Remedial Design, and Remedial Action study and sampling data, and related remedy selection documents;

- ➤ Reviewing demonstration that the remedy is operating properly and successfully; and

- ➤ Expediting review of environmental documentation relating to deeds and leases to accelerate economic revitalization through reuse.

The Fast Track Cleanup Program recognizes the importance of stakeholder involvement in the process of making decisions about environmental cleanup and the transfer of property. Restoration Advisory Boards (RABs) are the primary means for the community to provide input to the cleanup process. EPA and DOD issued joint guidelines on the implementation of RABs on September 27, 1994. RABs are a forum for exchange of information and partnership among citizens, the installation, DOD, EPA, and the state. RABs serve to improve DOD's cleanup program by increasing community understanding and support for cleanup efforts, improving the soundness of government decisions, and ensuring cleanups are responsive to community needs. In FY 1997, there were approximately 76 RABs at the 108 active Fast Track Cleanup installations. In addition, EPA is working with DOD to implement Executive Order 12898 on environmental justice to ensure that no group suffers a disproportionate share of any adverse health and environmental effects associated with the restoration and reuse of closing bases.

The BCTs have identified a number of potential measures to be considered for accelerating cleanups and effectively implementing the Fast Track Cleanup Program. These include:

- ➤ Joint, up-front scoping of projects;

***EPA's Federal Facilities Restoration and Reuse Office (FFRRO)***

The mission of FFRRO is to assist the federal government to promote effective and timely cleanup and reuse of federal facilities. Major FFRRO functions include:

- ♦ Remedial Implementation
- ♦ Base Closure
- ♦ Stakeholder Involvement
- ♦ Regional Program Support.

In conjunction with DOD and EPA's Regional Offices, FFRRO develops long-range environmental policies, plans, and programs to expedite the cleanup and transfer of closing military installations, and oversees Regional implementation of these programs.

FFRRO also develops guidance and policy for Superfund remedial implementation at federal sites and supports the development of related policies by other agencies.

FFRRO manages the Federal Facilities Environmental Restoration Dialogue Committee which provides the federal government advice on how to improve stakeholder involvement at federal facilities and improve priority-setting and management of cleanup programs.

- ➤ Concurrent review of documents;
- ➤ In-person review of comments and resolution of issues;
- ➤ Interim remedial actions and non time critical removal actions to eliminate hot spots;
- ➤ Recognition of parity between RCRA corrective actions and CERCLA remedial actions;
- ➤ Cleanup standards based on existing and reasonably anticipated uses of property;
- ➤ Coordination and communication between environmental restoration and reuse planning;
- ➤ Improved technology transfer, reviewing technology for application of expedited solutions;
- ➤ Innovative management, coordination, and communication techniques (e.g., partnering);
- ➤ Identification of opportunities for application of presumptive remedies; and
- ➤ Flexible contracting procedures.

The substantial benefits achieved through this teaming approach are made possible through EPA and state participation. Team members are able to participate through funding provided by DOD through Interagency Agreements (IAGs) with EPA and through the Defense State Memorandum of Agreement (DSMOA) program authorized by Congress. The resources and workyears provided to EPA reside primarily in the Regions. National direction for EPA's participation in the Fast Track Cleanup Program is provided by the Federal Facilities Restoration and Reuse Office in the Office of Solid Waste and Emergency Response.

**Information Sources**

Additional information on BRAC be found on the Internet at the following sites:

- ♦ FFRRO Home Page **http://www.epa.gov/swerffrr**
- ♦ DOD BRAC Home Page **http://www.dtic.mil/envirodod/envbrac.html**
- ♦ U.S. Army BRAC Web Site **http://www.hdqa.mil/acsimweb/brac/braco.html**

# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| BRAC Selection Process | FFRRO | NA | -- |
| Number of Fast Track Cleanup Locations | FFRRO | 06/06/97 | -- |
| BRAC IV Fast Track Locations by EPA Region | FFRRO | 06/06/97 | -- |
| BRAC IV Cleanup Teams by State | FFRRO | 06/06/97 | -- |

# ENVIRONMENTAL COMPLIANCE INDICATORS SUMMARY

Because of differences in how EPA and states define and assess compliance under different environmental programs, ***it is not feasible to develop a single compliance indicator that yields meaningful comparisons across programs***. However, evaluating selected compliance indicators over time can reveal how federal facilities are performing with respect to individual programs. Exhibit III - 53 presents compliance indicators that measure the level of relatively serious noncompliance at major federal facilities. The definitions of the indicators are summarized below:

| Statute | Compliance Indicator |
|---|---|
| RCRA | Percent of inspected federal TSDFs not cited for Class I violations |
| CWA | Percent of major federal facilities not in SNC |
| CAA | Percent of major federal sources in compliance |
| SDWA | Percent of federal systems not in SNC |
| TSCA | Percent of inspected federal facilities not in SNC |

From FY 1991 to FY 1996, RCRA compliance increased, CWA compliance increased and then steadily decreased, SDWA compliance fluctuated but remained high, CAA compliance decreased from the mid-90 percent range to the high 80 percent range, and TSCA compliance remained at a high level.

**Exhibit III - 53**

**Federal Facility Compliance Rates for Selected Indicators**

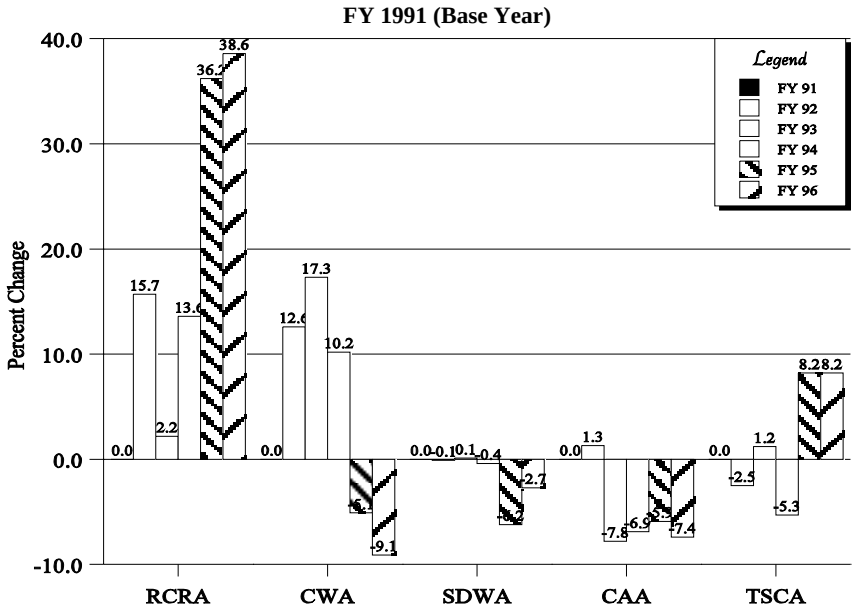
| Statute | FY 1991 | FY 1992 | FY 1993 | FY 1994 | FY 1995 | FY 1996 |
|---|---|---|---|---|---|---|
| **RCRA** | 54.2% | 62.7% | 55.4% | 61.6% | 73.8% | 75.1% |
| **CWA** | 80.3% | 90.4% | 94.2% | 88.5% | 76.2% | 73.0% |
| **CAA** | 94.4% | 95.6% | 87.0% | 87.9% | 88.8% | 87.4% |
| **SDWA** | 99.1% | 99.0% | 99.2% | 98.7% | 93.0% | 96.4% |
| **TSCA** | 92.4% | 90.1% | 93.5% | 87.5% | 100.0% | 100.0% |

To compare the preceding compliance rates with FY 1991, the base year, standardized compliance indicators are derived by dividing the annual rate for each indicator listed above by the FY 1991 value. These standardized indicators measure changes in compliance rates for the various programs relative to FY 1991 in the same way the consumer price index measures changes in the rate of inflation relative to a given base year. The purpose of standardization is to avoid potentially misleading comparisons of the absolute level of compliance, and instead focus on measuring changes in compliance over time.

As shown in Exhibit III - 54, the level of federal facility compliance with most major environmental statutes/programs has been somewhat mixed since FY 1991. Under CWA, SDWA, and CAA, the level of compliance at federal facilities decreased by 9.1, 2.7, and 7.4 percent, respectively, during the FY 1991 to FY 1996 time period. In contrast, RCRA compliance at federal facilities increased by 38.6 percent, and TSCA compliance increased by 8.2 percent relative to FY 1991.

**Exhibit III - 54**

**Percent Changes in Federal Facility Compliance Indicator Rates Relative to FY 1991**



# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| Federal Facility Compliance Rates for Selected Indicators | Multiple data bases | Various | Data drawn from sections of Section III of this document. |
| Percent Changes in Federal Facility Compliance Indicators | Multiple data bases | Various | Data drawn from sections of Section III of this document. |

# IV. INSPECTION AND ENFORCEMENT HIGHLIGHTS

This section provides a broad overview of the inspection and enforcement functions and activities of EPA's Federal Facilities Enforcement Office and discusses selected inspection and enforcement highlights at federal facilities during FY 1995 and FY 1996.

## The Federal Facility Enforcement Office

EPA's federal facility enforcement and compliance program, managed by FFEO, helps ensure the federal government is accountable to the public for its environmental record. In recognition of the public's vital interests, FFEO works to further engage the public with the federal sector in the decision making process for management and cleanup of environmental contamination at federal facilities.

In FY 1995 and FY 1996, FFEO continued to ensure federal government compliance with all environmental laws. The federal government manages a vast array of industrial activities at its installations. These activities present unique management problems from the standpoint of compliance with federal environmental statutes. Although federal facilities are only a small percentage of the regulated community, many federal installations are larger and more complex than private facilities and often present a greater number of sources of pollution in all media. The federal government is investing significant resources in addressing environmental cleanup and compliance issues at federal facilities.

Specific FFEO responsibilities address every aspect of federal facility compliance and enforcement, from planning to implementation. On a strategic planning level, FFEO works with EPA's Office of Enforcement and Compliance Assurance on enforcement and inspection targeting at federal facilities, oversees the federal agency environmental management planning program, and participates on interagency pollution prevention and compliance assistance working groups. In addition, FFEO reviews proposed federal legislation and develops EPA positions on appropriate federal responsibilities under such legislation. FFEO also is involved in developing federal facility enforcement strategies and in preparing guidance to assist Regions in their implementation.

***Major FFEO functions***

- Policy and guidance development,
- Regional program support,
- Interagency agreement negotiation support,
- Enforcement support,
- Program and information support, and
- Technical assistance and capacity building.

On an implementation level, FFEO is directly involved in enforcement negotiations, including CERCLA interagency agreements (IAGs) and Memoranda of Understanding, and in litigation and enforcement oversight at federal facilities. FFEO also tracks compliance at federal facilities; promotes pollution prevention, multi-media enforcement/compliance, and

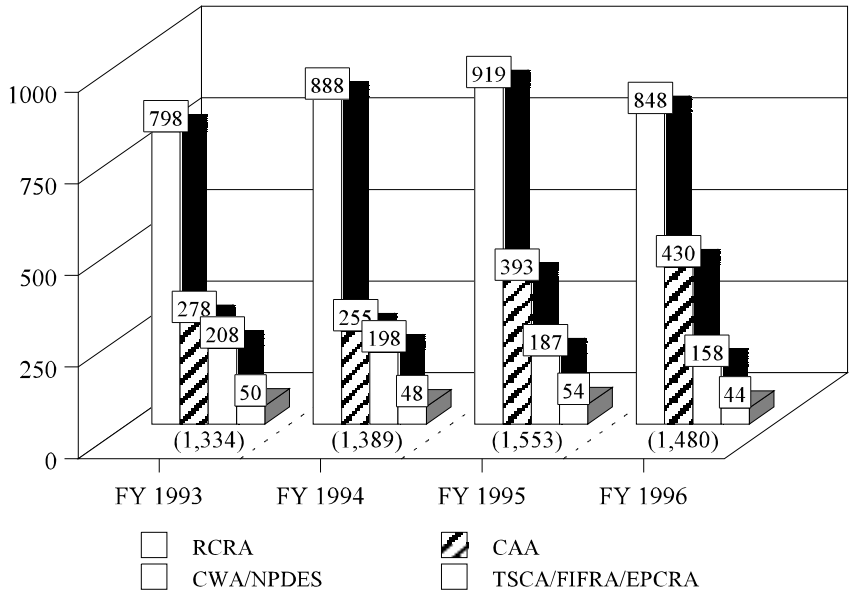
environmental justice at federal facilities; and encourages the use of innovative technologies to attain pollution prevention, compliance, and cleanup goals.

## Inspections Summary

Exhibit IV - 1 summarizes inspection activity at federal facilities from FY 1993 - FY 1996. Note that because the PWSS program under SDWA relies on self-reporting, there are no inspection data for this program. The total number of inspections at federal facilities conducted under all programs increased from 1,334 in FY 1993 to 1,480 in FY 1996. The level of inspection activity increased most dramatically under the CAA (54.6 percent), while RCRA inspections increased by a more modest 6.3 percent. In contrast, CWA/NPDES inspections decreased by nearly one-fourth, and taken collectively, TSCA/FIFRA/EPCRA inspections declined by 12 percent.

**Exhibit IV - 1**

**Federal Facility Inspections (FY 93 - FY 96)**




It should be noted that these overall totals are not necessarily indicative of the level of resources expended on inspection activities within a given program because they do not distinguish between inspection types. For example, there are many different types of inspections under RCRA[8] (e.g., Comprehensive Monitoring Evaluations, Compliance Evaluation Inspections, Record Reviews). Some of these are resource-intensive field inspections, while

[8] There are also several different types of inspections under the CAA and CWA/NPDES programs.

others are simply reviews of documents. For a more detailed discussion of inspection activity, see the statute/program-specific summaries contained in Section III of this document.

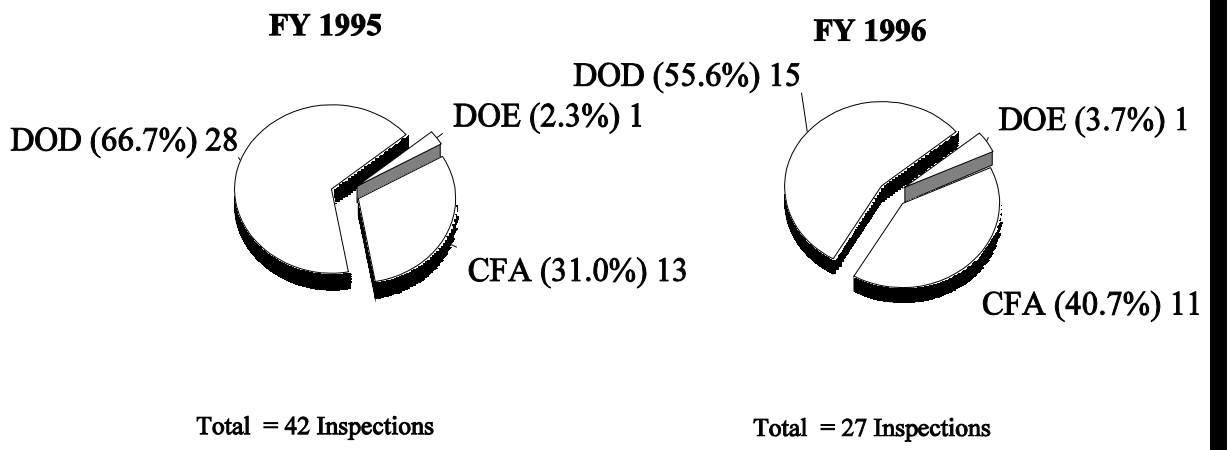
**Multi-Media Inspection Summary**

EPA established the Federal Facilities Multi-Media Enforcement/Compliance Program (FMECP) in FY 1993. Recognizing that federal facilities are a highly visible sector of the regulated community and have historically demonstrated lower rates of compliance with environmental laws than their private sector counterparts, the FMECP employs comprehensive multi-media assessments as a tool to promote improved long term environmental compliance.

During FY 1995 and 1996, nine of ten EPA Regions participated in the FMECP; conducting a total of 69 inspections (42 in FY 1995 and 27 in FY 1996). Exhibit IV - 2 presents the distribution of multi-media inspections according to agency category. The majority of these inspections occurred at DOD facilities, although DOD's share decreased from 66.7 percent in FY 1995 to 55.6 percent in FY 1996. The number of CFA inspections declined slightly over the same period (13 to 11), but this represented a substantial increase, in percentage terms, of the total number of inspections conducted each year. For both FY 1995 and FY 1996, one DOE facility received a multi-media inspection.

**Exhibit IV - 2**

**Multi-Media Inspections by Agency Category**



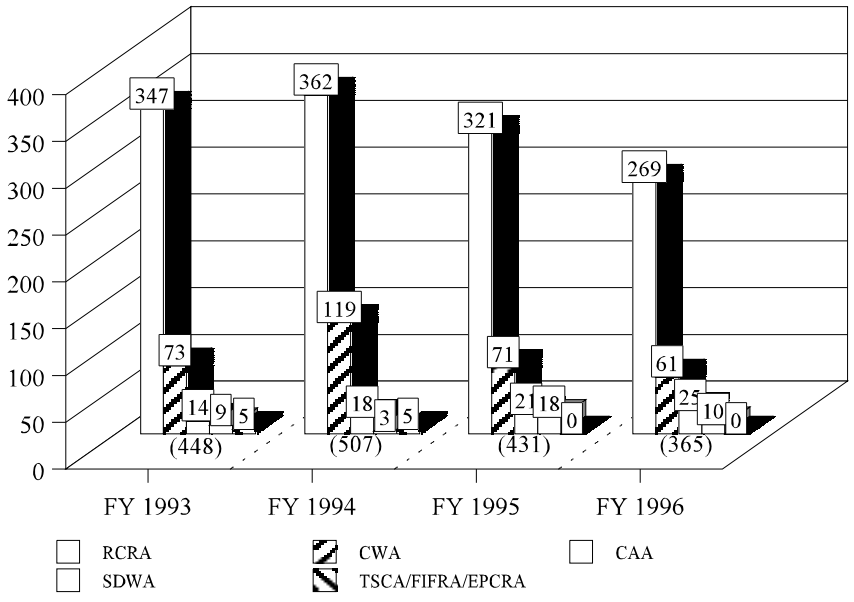
## Enforcement Summary

As shown in Exhibit IV - 3, the total number of enforcement actions taken against federal facilities decreased by more than 18 percent (448 to 365) from FY 1993 to FY 1996. The total number of RCRA enforcement actions taken against federal facilities decreased by 22.5 percent from FY 1993 to FY 1996. This substantial decrease occurred despite the overall increase in RCRA inspection activity (see Exhibit IV - 1 above). CWA/NPDES enforcement also declined by 16.4 percent, although as shown above, the decline in inspections was much more pronounced. Over the same period, CAA enforcement actions at federal facilities actually increased by nearly 80 percent, paralleling an increase of more than 50 percent in inspections. SDWA enforcement actions remained fairly constant during this time frame, while TSCA/FIFRA/EPCRA enforcement actions dropped to zero in FY 1996, albeit from a fairly small number (i.e., five) in FY 1993.

As was the case for inspections, these aggregate enforcement action totals do not account for differences in the type of enforcement action (i.e., a warning letter and an administrative order each count as one action). For a more detailed discussion of enforcement activity, see the program-specific summaries contained in Section III of this document.

**Exhibit IV - 3**

**Federal Facility Enforcement Actions (FY 93 - FY 96)**



## Federal Facility Compliance Act

The Federal Facility Compliance Act (FFCA), amending RCRA, became effective on October 6, 1992. The primary purpose of the FFCA is to ensure that federal facilities are treated in the same manner as privately-owned facilities with respect to RCRA compliance. The law greatly enhances state and EPA enforcement authorities against federal facilities. In the past, when EPA discovered RCRA violations at federal facilities, EPA relied primarily on negotiated Compliance Agreements to bring the facility back into compliance. States and EPA can now assess and collect penalties for violations of RCRA requirements, as well as issue Administrative Orders against federal facilities for enforcement of RCRA.

Exhibit IV - 4 summarizes FFCA/RCRA Administrative Orders and proposed penalties issued against federal facilities by EPA for FY 1993 through FY 1996. The number of EPA issued Orders increased from nine in FY 1993 to 12 in FY 1996, while proposed penalties decreased from $3.7 million to $1.35 million (63.5 percent). The average penalty decreased from approximately $410,000 in FY 1993 to 112,000 in FY 1996.

**Exhibit IV - 4**

**FFCA/RCRA EPA Orders and Penalties**

| | FY 1993 | FY 1994 | FY 1995 | FY 1996 |
|---|---|---|---|---|
| Administrative Orders | 9 | 10 | 8 | 12 |
| Proposed Penalties | $ 3,699,558 | $ 5,722,978 | $1,135,153 | $1,348,731 |

## Federal Facilities Enforcement Highlights for FY 1995 and FY 1996

The following section presents selected enforcement highlights at federal facilities during FY 1995 and FY 1996. Much of the material for this section of the State of Federal Facilities Report is drawn from the annual EPA Enforcement Accomplishments Report.

### Boston Veterans Affairs -- RCRA

On August 2, 1996, Region I issued a complaint and compliance order under Section 3008 (a) of RCRA to the South Huntington Avenue Veterans Affairs Medical Center in Boston, Massachusetts. The complaint alleged eight violations and assessed a penalty of $76,550. Violations included a failure to safely store incompatible hazardous wastes and/or materials incompatible with hazardous wastes; storage in containers that were not compatible; the failure to appropriately label containers; and the failure to provide proper certification for land disposal restrictions. During a multimedia inspection, inspectors found that jars of caustics were stored with jars of acids and also that jars of explosives were stored with caustics in cardboard boxes. Such storage could trigger an explosion, putting Veterans Administration employees and veterans at risk. They found 240 glass and plastic jars of waste chemicals stored in cardboard boxes labeled as hazardous waste containers.

### West Point -- RCRA

Region II issued a complaint, compliance order, and notice of opportunity for hearing February 22, 1996 for hazardous waste violations against the U.S. Army Military Academy at West Point, New York. The order included a total assessed penalty of $24,496 for alleged RCRA storage and manifesting violations, which involved "a large quantity generator that generates hazardous waste from laboratory, training, and vehicle and equipment maintenance operations." EPA discovered the violations during an August 11, 1995, RCRA compliance evaluation inspection at the facility.

### Fort Campbell -- RCRA

Region IV issued a RCRA complaint and compliance order, assessing a $48,700 penalty, against the Fort Campbell Army base on the Kentucky/Tennessee border. Fort Campbell has had repeated violations, including: failure to make hazardous waste determination, failure to correctly label containers, failure to remove hazardous waste from satellite accumulation areas in a timely manner, and failure to maintain emergency equipment. In September 1994, EPA issued an order and imposed penalties against Fort Campbell for similar violations.

### Memphis Depot -- RCRA

Region IV issued a Compliant and Compliance Order assessing a $20,000 penalty against the Defense Logistics Agency's Memphis Depot in Memphis, Tennessee for RCRA violations. The facility violated the conditions of its permit by improperly storing incompatible wastes, creating potentially dangerous conditions. Local citizens have raised environmental justice issues about this facility.

### Oak Ridge -- RCRA

Region IV reached settlement with Lockheed Martin Energy Systems for failure to adequately inspect hazardous waste tank systems in one area at DOE's Oak Ridge, Tennessee facility. The RCRA Consent Agreement and Consent Order imposed a $22,500 penalty for improper inspection procedures. The facility now properly performs the tank inspections. The facility originally noted the violation during a Martin Marietta internal audit conducted in June 1994 and the DOE Inspector General's Office discovered it to still be a problem in January 1995.

### Rocky Flats -- CERCLA

EPA, DOE, and the State of Colorado, signed the new Rocky Flats Cleanup Agreement (RFCA) in Denver, Colorado on July 19, 1996, after nearly three years of negotiations. The signatories to the RFCA were EPA's Deputy Administrator Fred Hansen and Acting Region VIII Administrator Jack McGraw, Under Secretary of Energy Tom Grumbly and site manager Jesse Roberson, and Lieutenant Governor Gail Schoettler and Tom Looby, Director of Colorado's Office of the Environment. The RFCA contained many innovative provisions designed to speed up cleanup activities at the Rocky Flats site. The RFCA streamlined the regulatory process by dividing the site into two areas - the industrial area, where the state is the lead regulator, and the environmental buffer zone, where EPA is the lead regulator.

### King Salmon -- CERCLA

EPA Region X negotiated an agreement with the Alaska Department of Environmental Quality (ADEQ)and the USAF to establish a framework for carrying out the selected interim remedial action at the site according to CERCLA. EPA's role is to provide technical assistance and consultation to the USAF and ADEQ in carrying out the agreement. EPA does not have a direct enforcement role in this agreement. King Salmon Airport was a barrel, metal and wood disposal area. Contamination of soil, groundwater, surface water and sediments with PCB, TCE, arsenic, cadmium, lead and mercury are present. Remedial action requires that a cap be designed and installed, along with groundwater monitoring. This agreement is unique in that the facility would be cleaned up using CERCLA protocol since the Governor of Alaska would not agree to place this facility on the NPL.

### Port Hadlock -- CERCLA

On July 16, 1996, an IAG between EPA Region X, the U.S. Navy and the State of Washington was reached in addressing remedial actions to be conducted at the Naval Ordnance Center Pacific Division, Port Hadlock Detachment, Hadlock, Washington. This agreement was significant since it provided the lead for regulatory oversight to the State of Washington. The agreement also had unique CERCLA 109 penalty provision and dispute resolution.

### Picatinny Arsenal -- CAA

Region II issued a compliance order May 15, 1996, to the U.S. Army Armament Research, Development, and Engineering Center at the Picatinny Arsenal, in northern New Jersey for noncompliance with requirements under the Clean Air Act regarding prevention of significant deterioration in air quality (PSD). The Arsenal was subject to the PSD requirements because operation of two boilers on the facility caused significant net emissions increases of NOx. Stack tests in November 1994, and January 1995, were made on two boilers that had been converted from coal to natural gas as a primary fuel and #6 fuel oil as a secondary fuel. Test results showed that net emissions of NOx from the Arsenal using fuel oil vs. natural gas would increase "significantly" using natural gas -- by more than 40 tons per year -- above the level of emissions from fuel oil as it existed before the modification of the two boilers. The order directed the Army to display the PSD non-applicability of the #6 fuel oil to natural gas conversion within 60 calendar days or comply with the requirement of the PSD regulations.

### Seneca Army Depot -- SDWA

Region II reached a final Federal Facilities Compliance Agreement (FFCA) on June 25, 1996, which required the Seneca Army Depot in New York to comply with the Surface Water Treatment Rule under the SDWA. The FFCA, signed by EPA and Seneca Army Depot, in Romulus, New York, required the facility to comply by eliminating its unfiltered surface water source and connecting to a water supply being developed by the Town of Varick, New York.

### Minuteman II Compliance Agreement -- RCRA/TSCA

FFEO led an EPA-state effort to develop, coordinate, and execute a compliance agreement with the USAF addressing Minuteman II missile silo implosions in support of the Strategic Arms Reduction Treaty (START). Solid-matrix PCBs were a component in the weatherproofing on missile silos and support buildings as well as a rust-proofing agent, along with asbestos on underground storage tanks. With the assistance of the Office for Prevention, Pesticides and Toxic Substances (OPPT) and OECA's National Enforcement Investigations Center (NEIC), a sampling and analysis plan was developed and implemented which served as the basis for compliance agreement discussions. When the final Agreement was executed, it

included provisions for the development of a comprehensive groundwater monitoring plan, long-term environmental monitoring, a Hardened Intersite Cable System (HICS) Sampling Plan, deed restrictions, closure/removal of underground storage tanks and reporting requirements. The Agreement was very unique in that it provided for affected states to negotiate and execute their own state annex of distinct state requirements in addition to the provisions in the EPA/USAF Compliance Agreement. This precedent-setting agreement will serve as a model for active missile sites as well as other closing missile sites. Implementation of this Agreement is expected to save U.S. taxpayers millions of dollars.

### Maritime Administration (MARAD) Letter of Enforcement Discretion -- TSCA

FFEO developed and negotiated the Letter of Enforcement Discretion (LOED) between MARAD and EPA in the first Agreement of its type governing ship scrapping activities. After extensive coordination with other EPA program offices and the State Department, the LOED provides an EPA-approved process by which MARAD and their designated ship scrappers can test, analyze and remove regulated PCBs so that a vessel can be exported for scrap recycling overseas where the profits to MARAD are much greater than domestic scrap sales. The development of the LOED included FFEO's request for OPPT development of a technical policy for sampling vessels for PCBs as well as the development of a subsequent policy for sampling paint on vessels.

The LOED included provisions for financial assurance; determination of MARAD as a "generator" for purposes of continuing liability during the vessel scrapping process; determination that the shipyard was not a temporary storage facility under the Toxic Substances Control Act (TSCA) but permitted enforcement discretion of certain storage requirements; itemization of known PCB uses on older vessels; international notification provisions; certification of PCB removal; notification provided to EPA by or their Co-Generators; inspection of PCB removal; and addressing asbestos and lead-related issues. FFEO obliged MARAD's request that the LOED be expanded to include ten more vessels bringing the number of vessels covered in the LOED to twelve.

### DOE's Gaseous Diffusion Process Facilities -- TSCA

FFEO directed the EPA negotiations with DOE concerning the status of unauthorized PCBs at DOE uranium enrichment facilities and in February 1992, executed this Compliance Agreement. FFEO coordinated with Region IV as they developed an agreement with the DOE that will remove Oak Ridge from the TSCA FFCA and incorporate the Oak Ridge K-65 site into Region IV's overall strategy to ensure that available environmental funds are used to address the greatest environmental risks. Implementation meetings with DOE have been reduced from quarterly meetings to one annual meeting that coincides with the release of the annual progress

reports for Oak Ridge, Paducah and Portsmouth. FFEO continues implementation of the Agreement.

### Sinking Exercise Agreement -- TSCA

FFEO developed, coordinated, and executed an agreement with the Navy providing for the target practice and sinking of up to eight vessels, pursuant to all existing permits issued by EPA as well as the requirements of the agreement. Navy preparation for SINKEX included the removal, to the maximum extent practicable, of all materials which may degrade the marine environment, including the emptying of fuel tanks and lines, flushing tanks and lines, and removing from the hulls other pollutants and all readily detachable material capable of creating debris or contributing to chemical pollution. Removal of all transformers and capacitors containing three pounds or more of dielectric fluid was required as well as reasonable efforts to remove capacitors containing less than three pounds of fluid, and the draining and flushing of hydraulic equipment and heat transfer equipment. The Agreement referenced a modeling study performed by the Navy in 1993, which was conducted to assess the potential for impacts to the marine environment from SINKEX . The Navy study predicted that no unacceptable impacts would result from sinking these ships in cold, deep water. The Agreement also referenced the Navy's current implementation of a field study to verify the model predictions from the 1993 study.

### Tugboat Transfer Letter of Enforcement Discretion -- TSCA

FFEO coordinated with EPA Region V and other EPA Program Offices when the Navy requested transfer of tugboats with unauthorized PCBs to the Northeast Wisconsin Railroad Transportation Commission for lease to the Escanaba & Lake Superior Railroad Company. The Letter of Enforcement Discretion served as the precedent for all transfers of ownership and subsequent lease of unauthorized PCB-contaminated property for reuse. The PCBs in such things as rubber mounts, cables, and gaskets could not be removed without destroying the vessel. In addition to terms of use, the letter addressed ultimate decontamination and disposal of the six Cherokee class tugboats. On July 16, 1996, an IAG between EPA Region X, the U.S. Navy and the State of Washington was reached in addressing remedial actions to be conducted at the Naval Ordnance Center Pacific Division, Port Hadlock Detachment, Hadlock, Washington. This agreement was significant since it provided the lead for regulatory oversight to the State of Washington. The agreement also had unique CERCLA 109 penalty provision and dispute resolution.

### Consolidated Power and Mineral -- TSCA

FFEO worked with OECA-TEPD in the development of a Letter of Enforcement Discretion concerning the transfer of former Naval vessels with unauthorized PCBs to CPM for use as mobile electrical generating stations. The letter addressed terms of use and disposal of

these vessels since removal of the PCB applications in such things as rubber mounts, cables, and gaskets would render the vessel useless.

### Charleston Navy Shipyard -- TSCA

FFEO worked with EPA Region IV to issue Letters of Enforcement Discretion leasing Navy crane-barges to private concerns at the closed Charleston Navy Shipyard. The crane-barges were contaminated with unauthorized PCBs.

### Museum Transfer Ships -- TSCA

FFEO continues to provide on-going counsel to regional PCB coordinators and ORCs in jurisdictions where former Naval aircraft carriers and similar vessels are donated to a city for display as a museum. The first agreements used to transfer the *USS Lexington to* Corpus Christi, Texas, and continued use of the vessel as a museum have been used as a model by Region I in the transfer of the *USS Salem.* The Agreements addressed the transfer, continued use and ultimate disposal of these vessels with unauthorized PCBs where removal of the PCBs would not be feasible.

### Fort Defiance -- RCRA

On September 27, 1995, EPA issued a complaint and compliance order to the Bureau of Indian Affairs (BIA) for RCRA violations at the Fort Defiance Arizona, facility, including: operating a storage facility without a permit, storing LDR was beyond allowable deadlines, and failure to file a notice of hazardous waste activity. Total civil penalties assessed for the violations were $269,019.

### Naval Nuclear Propulsion Program -- RCRA

In September of 1995, EPA transmitted five consent orders to the Naval Nuclear Propulsion Program (NNPP) for final negotiation and signature. On October 5 and 6, 1995, EPA and the NNPP signed all five consent agreements and compliance orders for facilities in Regions I, III, and IX in accordance with the requirements of RCRA as amended by the FFCA of 1992. The facilities involved were Knolls Atomic Power Laboratory-Windsor Site in Connecticut, Portsmouth Naval Shipyard in Maine, the Bettis Atomic Power Laboratory in Pennsylvania, the Norfolk Naval Shipyard in Virginia, and Pearl Harbor Naval Shipyard in Hawaii.

The FFCA also provided a limited three-year exemption from the assessment of fines and penalties for Section 3004(j) land disposal restriction storage prohibition violations involving radioactive mixed waste at DOE facilities. The FFCA specified that DOE must develop an inventory of mixed waste and develop comprehensive site treatment plans (STPs) for mixed waste. All the Naval Nuclear Propulsion facilities and DOE facilities that generate or store mixed waste were required to develop and submit STPs to EPA or an authorized state for

approval. The STPs were required to: (1) identify the appropriate treatment facilities which will treat each mixed waste stream, and (2) develop schedules for treating each identified waste stream generated by the facilities.

The FFCA further provided that EPA or a state with the requisite RCRA authority had to approve the site treatment plan and issue an Order pursuant to Section 3008(a) of RCRA by October 6, 1995, that required adherence to and implementation of the approved site treatment plan. The failure of a facility to have an approved site treatment plan would result in the loss of sovereign immunity for fines and penalties.

### Groom Lake

On May 19, 1995, the Director of the FFEO and the Deputy Assistant Secretary of the Air Force signed a memorandum of agreement ensuring that EPA has continued access to the operating location near Groom Lake for administering environmental laws. Moreover, due to national security concerns, the Air Force agreed to provide reasonable logistical assistance to EPA. Finally, EPA agreed that any classified information obtained by EPA would be treated in accordance with applicable laws and executive orders regarding classified materials.

### U.S. Army Aberdeen Proving Ground -- RCRA

On June 19, 1995, a consent order was signed by the Army for violations of RCRA land disposal restrictions pursuant to a multimedia inspection conducted by NEIC at APG in June of 1993. The Army was assessed with a penalty of $100,000 for the violations and reached a settlement amount of $92,000 as part of the order.

### Altus Air Force Base -- RCRA

On March 24, 1995, EPA issued a unilateral administrative order under Section 3008(h) for RCRA corrective action, including a RCRA facility investigation and corrective measures, if needed. Altus requested a hearing on the order. In July 1995, a hearing was held, with the Regional Judicial Officer presiding.

### U.S. Army Natick Research Facility -- CERCLA

The U.S. Army has agreed to pay a $49,000 penalty for mishandling hazardous wastes at its Natick Research, Development, and Engineering Center, Massachusetts. The facility specializes in food engineering, aero-mechanical engineering, and clothing, materials, and equipment engineering. The Army failed to properly identify wastes generated on site, and failed to label, date, and mark hazardous waste containers. The facility was recently named to the National Priority List.

## U.S. Army Rocky Mountain Arsenal -- CERCLA

The Army manufactured chemical weapons, such as napalm bombs, mustard gas, and conventional munitions, until the 1960s and destroyed weapons at the Arsenal through the earlv 1980s. In addition, the Amy leased a portion of the Arsenal to the Shell Oil Company from 1952 to 1987 to produce herbicides and pesticides. The Arsenal has been described by courts as "one of the worst hazardous waste pollution sites in the country " due to extensive soil and groundwater contamination from more than 750 different hazardous wastes spilled or improperly disposed of in several areas. Three plumes of contaminated groundwater migrated off-site before intercept systems were installed, contaminating local wells and forcing EPA and local authorities to provide residents with bottled water. The Arsenal was placed on the NPL in 1987, and in 1989, a CERCLA cleanup agreement was signed between EPA, the Army, and other stakeholders. However, the state did not sign the agreement because of ongoing litigation with the Army and Shell.

On June 13, 1995, EPA's Region VIII Administrator, the Lieutenant Governor of the State of Colorado, the U.S. Army, the Shell Oil Company, and the U. S. Fish and Wildlife Service signed a conceptual agreement for the cleanup of the Arsenal. Based on the agreement, the Army estimates the cleanup will cost $2.1 billion and will be completed in about 2010. Prior to the agreement, the Army estimated cleanup would cost $2.8 billion to $3.6 billion. Once the cleanup is certified completed by EPA, the arsenal is to become a national wildlife refuge managed by the Fish and Wildlife Service.

## Army Materials Technology Laboratory -- CERCLA

EPA and the Army agreed on the terms of a Federal Facility Agreement for the Army Materials Technology Lab (AMTL) in Watertown, Massachusetts. AMTL is a BRAC 1, fast track base, slated for closure in September 1995. The Army and EPA agreed on ways to accelerate the schedule of the remedial process at this BRAC I base to reach a ROD date of August 30, 1996. The Army and EPA also agreed on new language in the FFA on the land transfer issue that addressed EPA's concern regarding protecting the ongoing cleanup and ensured the activities of subsequent transferees did not interfere with cleanup efforts. The FFA was accompanied by a side letter from the Army reinforcing its commitment to ensure that the substance of protective language worked out with EPA was actually included in the appropriate land transfer documents. The AMTL site was placed on the NPL in May 1994. In anticipation of NPL listing and because it was a BRAC site, EPA became actively involved in the fall of 1993.

### Defense Distribution Depot Memphis, Tennessee (DDMT) -- RCRA/CERCLA

A three party CERCLA Section 120 cleanup agreement addressing cleanup at the DDMT NPL site was finalized during FY 1995. The three parties were EPA, the State of Tennessee, and the Defense Logistics Agency. DDMT encompasses 642 acres, four miles from Memphis's central business district in a mixed residential, commercial, and industrial land use area of Shelby County, Tennessee. This agreement, entered into under both RCRA and CERCLA authorities, was significant in that it gave the state authority to assess a penalty, and if a dispute cannot be resolved at the Regional level, the Regional Administrator may delegate resolution to the Assistant Administrator for Enforcement and Compliance Assurance.

### F.E. Warren Air Force Base -- CERCLA

As a result of contamination of ground water, surface water, and soils, F.E. Warren Air Force Base was listed on the NPL in 1990. EPA, Wyoming, and the Air Force subsequently signed a FFCA in 1991. In the fall of 1993, the Air Force violated the terms of the cleanup agreement. EPA discovered these violations in December and notified the Air Force that it was assessing stipulated penalties for failure to containerize and test sampling and field investigation-derived wastes. The Air Force has agreed to undertake a supplement environmental project implementing a recycling program for glass, newsprint, aluminum, plastics, and steel/tin cans and to pay a cash penalty of $10,000.

# Documentation for Exhibits in this Section

| Exhibit Title | Information Source | Date of Data Pull | Comments |
|---|---|---|---|
| Federal Facility Inspections | Multiple data bases | Various | Data drawn from sections of Section III of this document. |
| Multi-Media Inspections by Agency Category | FFEO | Various | -- |
| Federal Facility Enforcement Actions | Multiple data bases | Various | Data drawn from sections of Section III of this document. |
| FFCA/RCRA EPA Orders and Penalties | FFEO | -- | Data drawn from FY 1995 and FY 1996 Enforcement Accomplishment Reports |